USER'S MANUAL

STAR FINGER007

STAR FINGER007SR

Access Controller

Rev. V1.0

IDTECK

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1. IMPORTANT SAFETY INSTRUCTIONS

To prevent injuries to persons and damages to property, please read all the instructions and follow them whenever you deal with this product.

After reading, please put this instruction manual where it can be easily seen for the system operator.

ON INSTALLATION AND POWER

Use 12V DC power ONLY.
- Connecting to higher than 12V DC may result in a risk of electric shock, fire, or heavy damage of the unit.

Do NOT install this product at places with wet or metallic dust, or that can be watered.
- There may be risks of electric shock and fire.

Do NOT install this product near electric motors running.
- The unit may not operate normally.

Do NOT set this product near heaters or any thing that produces heat.
- There may be a risk of fire.

Be ALWAYS careful not to short-circuit any part of the circuitry with tools like a screwdriver in hand.
- There may be a risk of fire or heavy damage of the unit.

ON MAINTENANCE

Do NOT use any kind of liquid for cleaning.
- There may be a risk of electric shock, fire or heavy damage of the unit. Use an air spray, if needed.

Users are cautioned NOT to attempt repair of this product or modify the wirings set by the installer at their own discretion.
- It may pose the risk of fire, hardware damages, or abnormal operations of the unit.

It is recommended not to use a flammable spray or something easy to burn near this product.
- There may be the risk of an explosion or fire.

Keep the unit away from any unauthorized people.
- It may cause abnormal operations of the unit.

NOTICE

Please, contact a designated service center or the outlet at which the product was purchased when

A. Any liquid has been spilt or sprayed onto the product. In this case, cut the power off first.

B. The product seems to be operating abnormally.

C. The unit exhibits a distinct change in performance.

D. The unit has fallen to be broken down or damaged on its case.

* The cost of repairing can be charged for troubles due to the improper handling or negligence of users or the operator.

2. INTRODUCTION

2.1 IDENTIFYING SUPPLIED PARTS

Please unpack and check the contents of the box. (Optional accessories, if purchased, may be included in the package)

Main Unit
(1)

Mounting
(1)

O-Ring
(5)

Manual
(1)

Diode
(2)

2.2 ABOUT STAR FINGER007

The **STAR FINGER007** is a highly advanced, intelligent single door controller with a powerful 32bit and dual 8bit microprocessor to meet the market requirement for a robust integrated solution for access control and time & attendance. The unit is designed to be flexible and reliable as well as provide the ultimate in biometric high security at a reasonable cost. This user-friendly device allows you to register up to 720 fingerprint IDs (optional 2,000/4,500); add / delete user IDs conveniently; store up to 26,000 transactions in its event buffer; easily report and archive information to Excel or Access databases; and ultimately successfully manage all access control and time & attendance issues. With a built-in 4" RF reader, keypad for Personal Identification Numbers (PIN), and a sophisticated biometric fingerprint analyzer, the **FINGER007** offers up to three levels of ID verification. Any combination of prox, PIN, and biometric may be used and different verification levels can be custom programmed for each user or user group. Four independent input ports can be utilized for a wide variety of controls including exit buttons, door contacts, PIR sensors and fire detection equipment. Actions to be taken and time settings can be programmed with the front keypad or via the intuitive Windows based software program. The **FINGER007** can be used both as a stand-alone system and also be networked. All control setting values such as ID numbers, inputs/outputs, real-time clock, time schedules, and event transaction reports can be uploaded and/or downloaded to and from the host computer. The compact and contemporary unit is easily installed and programming requires no significant knowledge of access control or time & attendance. The Three-LED indicator lights inform you of the systems operating status at real time and the digital display acts as a programming aid as well as a regulation time clock. By bundling the ultimate in high security access control and comprehensive employee management tools into a compact user friendly unit, the field proven **STAR FINGER007** has made real what until recently was thought only to be possible in science fiction.

2.3 SPECIFICATION

STAR FINGER007

CPU	32bit, dual 8bit Microprocessor
Memory	Program Memory : 64KB EEPROM Data Memory : 512KB SRAM(battery backup)
Power	DC 12V/ 350mA max.(excluding lock current)
Card Holders/ Event Buffer	Card Holders : 720(optional 2,000/4,500) Event Buffer : 26,000
Reader Port	1 Extra port, 1 Internal port
Reader Data Format	Standard 26bit Wiegand(STAR FINGER007) Standard 34bit Wiegand(STAR FINGER007SR) 8 bit burst Format for keypad reader
Communication port	RS232/RS422(up to 32 channels) selectable 4800, 9600(Default), 19200, 38400bps communication speed
Input/Output	4 Input ports/ DC12V/ 20mA 2 Relay Output ports/ DC12V/ FORM-C Relay 2A max. 2 TTL Output ports: DC5V/ 20mA
Keypad	16 Keypad (Back lighting)
LCD	1 x LCD module, 2Lines x 16ch, 65.6 x 13.8mm view area
Light source	LED (finger unit)
Mounting	Wall mounted
Color	Dark pearl gray
Material	Polycarbonate
Self diagnostic	Yes
Reset	Power on Reset and Watchdog timer reset
Operation Status	3 LED (red, green, yellow) in dicators
Operation Environment	0°C ~ +40°C, 10% ~ 90%(Humidity)
Weight	525g
Dimensions	161.6mm x 122.6mm x 36.5mm
Certification	FCC Class A part 15, UL294, MIC

3. PRODUCT OVERVIEW

3.1 FUNCTIONS

Stand-Alone Operation

The **STAR FINGER007(STAR FINGER007SR)** is capable of having two readers(entry and exit). The unit receives card data signals from the RF readers and determines whether or not to unlock the door. When an input signal is sent, for example from and activated sensor or if the exit button pressed, the controller generates and logs an appropriate response. All events are kept in its own memory and sent to the host computer. The access controller is a true standalone device that in the event of a malfunction, will not affect other units, even if used in conjunction with one another.

Operation with Host Computer

All event transactions can be managed via the host computer. The data transmitted from the controller can be displayed and stored on the host PC.

Data Backup

The controller retains all user information and event data for 30 days, even in the event of power failure.
CAUTION : Battery S/W must be set correctly before the unit running.
(See the INSTALLATION section)

Keypad

If the STAR FINGER007 is not connected to host PC, the integrated keypad and LCD display module can also be used for the entire programming process manually.

Anti-Pass-Back

Using an additional proximity reader foe exiting, the Anti-Pass-Back mode can be set. Anti-Pass-Back mode prevents any entry or exit when the registered user did not properly followed one entry and one exit by the Anti-Pass-Back rule. APB only allowed exit for the user once got into the door first and it doesn't allow any user trying twice entry or twice exit

Input/Output

The STAR FINGER007 has built-in 4 inputs and 4 outputs (2 relay outputs and 2 TTL outputs) which can be used to manipulate a wide variety of controls.

Time Schedule Setup

You can program 10 time schedules and apply one time schedule to each user. Each time schedule has 8 different time zones from Monday to Sunday(7 time zones) and one holiday. Each time zone has 5 different time codes so you can program 5 different time codes to each day. Also you can program time schedule for individual inputs and outputs. Note that the time schedule for input is activated time code for input device so that the input is activated during the time code on this time schedule. Each time schedule is linked to one of holiday schedule and this linked holiday only validates to holiday time code

of the time schedule.

Holiday Schedule Setup

Excepting Sunday, you can program 32 holidays to one holiday schedule. Each holiday schedule is linked to one time schedule which has time code for holidays. So you can program all holidays to holiday schedule and the time code for holidays is programmed to holiday time zone of time schedule.

Example : A : Holiday schedule 01 linked to time schedule 01,
Holiday schedule 02 linked to time schedule 02.
B : Holiday schedule 02 linked to time schedule 01,
Holiday schedule 01 linked to time schedule 02.

Forced Door Open and Door Open Alarm

When door is opened by force, Door Contact Output is generated. And, when the door is being opened by normal operation, after 20 sec. door-open alarm(blink buzzer) will be generated until the door is closed.

Duress Alarm

You can select Duress Mode enable or disable. If you select Duress Mode enable, in case of Duress, enter the 2 digit Duress Password and press **<ENT>** and open the door using general process. If you registered ID, then Duress Output will be generated, and alarm event will be sent to the host PC.

1:N Certification (IDENTIFICATION)

You can certify using the fingerprint alone without RF card or PIN. You can set this function through the <TYPE SELECTION> in SETUP MENU F1. In the IDENTIFICATION MODE, the security level gets higher automatically, FRR(False Rejection Ratio) as well, but FAR(False Accept Ratio) gets lower, which may result in a lower recognition ratio.

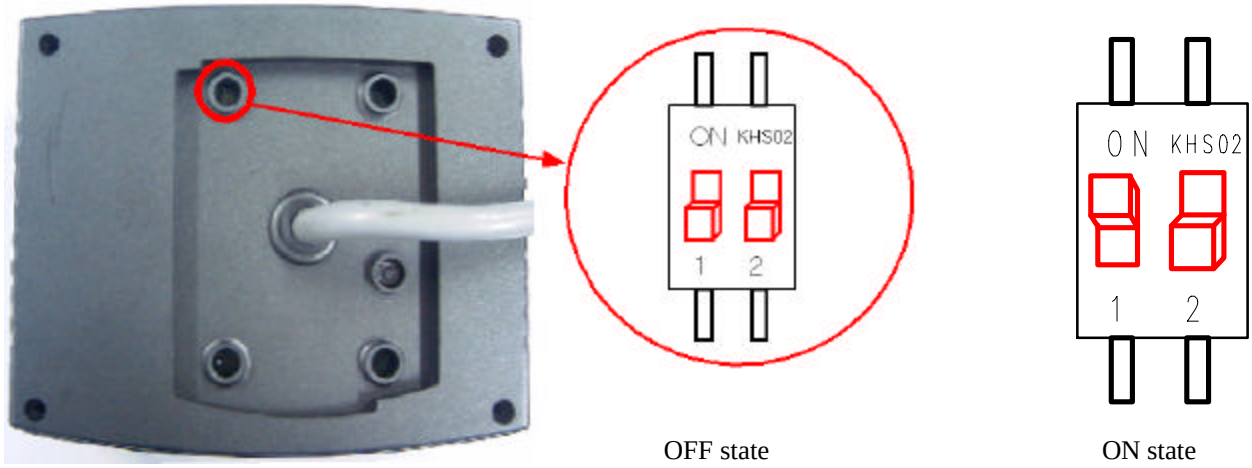
When using this mode, you have to press the **<ENT>** key first, then the fingerprint scanner waits for a fingerprint to be scanned. When a fingerprint-scanning is completed, **FINGER007** compares the data and makes corresponding outputs.

*** CAUTION : The number of registrants must be 50 or less.**

3.2 Product Explanation

STAR FINGER007

3.2.1 Panel Description



BAT connection S/W

- **FINGER007(of V4.70 or higher) has a S/W(reverse side – Template hole) for the backup battery connection. Before the FINGER007 installation, it needs to be connected before H/W initialize so that backup battery can retain the memory during power failure.**

3.2.2 Color Coded & Wiring Table

IO PORT NAME	SIGNAL NAME	COLOR CODED
POWER		
Main Power(+12V)	+12V	RED
Power Ground	GND	BLACK
OUTPUT		
Door Relay(COM)	COM(1)	Gray with Red stripe
Door Relay(NC)	NC(1)	Blue with White stripe
Door Relay(NO)	NO(1)	White with Red stripe
Alarm Relay(COM)	COM(2)	White
Alarm Relay(NC)	NC(2)	Purple with White stripe
Alarm Relay(NO)	NO(2)	Purple
TTL Output1	TTL1	Orange with White stripe
TTL Output2	TTL2	Brown with White stripe
INPUT		
Exit Button	EXIT	Orange
Door Sensor	CONTACT	Yellow with Red stripe
Aux Input 1	IN1	Green
Aux Input 2	IN2	Green with White stripe
EXTRA READER		
Wiegand Data0	DATA0	Pink
Wiegand Data1	DATA1	Cyan
RS232 INTERFACE		
RS232-TX	TXD	Black with White stripe
RS232-RX	RXD	Red with White stripe
RS422 INTERFACE		
RS422-TX(-)	TX(-)	Yellow
RS422-TX(+)	TX(+)	Gray
RS422-RX(-)	RX(-)	Blue
RS422-RX(+)	RX(+)	Brown

4. INSTALLATION REQUIREMENTS

Installing the **FINGER007** is a relatively easy task. It can be installed with common hand tools and readily available communications wire. This section provides information about wiring, wire runs and other information to make the installation quick and easy.

4.1 WIRE/CABLE

Good electrical connections will minimize the line losses and avoid damages to the **FINGER007** control electronics. Use good quality and proper thickness of wire with durable insulation such as vinyl or PVC. It may be faster and much economical to run multiple, twisted pair cable rather than individual pairs. The following cable and wire thickness from the Belden Master Catalog 885 are adequate for the most **FINGER007** applications. These are offered as a reference only.

Belden No. 9745 3 twisted pairs, 22 AWG, 7/30 stranded, unshielded, PVC insulation and jacket, 14.7 ohms/1000 feet (about 300meter).
Belden No. 9750 3 twisted pairs, 20 AWG, 10/30 stranded, unshielded, PVC insulation and jacket, 10.3 ohms/1000 feet (about 300meter).
Belden No. 8303 3 twisted pairs, 22 AWG, 7/30 stranded, shielded, overall foil/braid shield, PVC insulation and jacket, 14.7 ohms/1000 feet (about 300meter).

CONDUIT

The **FINGER007** does not normally require conduit. However, some location may require conduit for wire protection. Check installation requirements and specifications for your site.

COMMUNICATIONS WIRING

FINGER007 communication is required for using twisted pair wires.

RS232C : 15 meters RS422 : 1200 meters

POWER WIRING

Wires supplying power to **FINGER007** may be either twisted or non-twisted pairs. Select the proper wire size to minimize line losses.

OTHER WIRING

Other wiring not mentioned above may be twisted or non-twisted pair wires. This would include wires to door contact sensors, door lock devices and other auxiliary devices. Wire runs should dictate the wire size used.
CAUTION : Install a surge absorber or reverse surge protector(diode) at any relay contact that switches DC voltages to an inductive load.

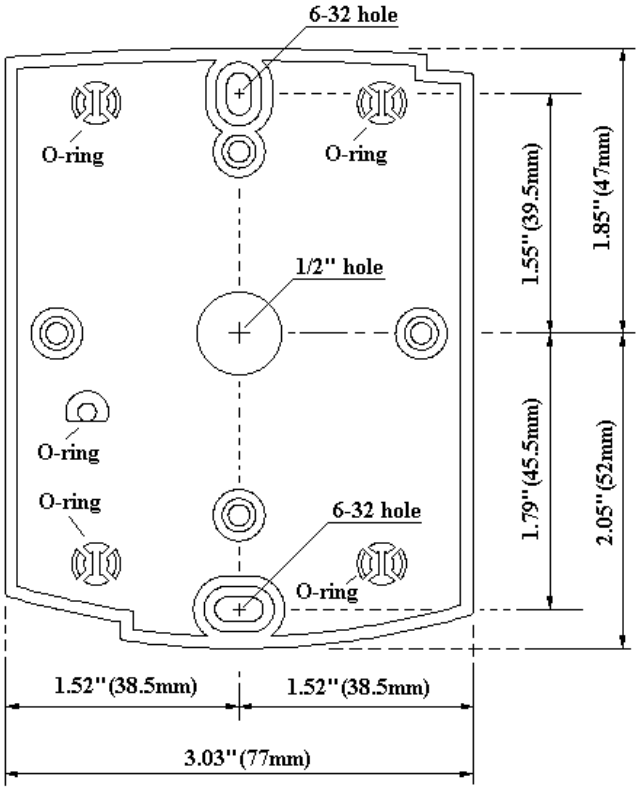
EARTH GROUND

The **FINGER007** must be properly grounded to the earth for safety reasons and to prevent damage to the micro-electronics due to electrostatic discharges. The **FINGER007** must be connected to earth ground either through conduit, if used, or through a separate ground wire.
On-site connection to earth ground can be accomplished through:
A earth ground rod, A metal water pipe, The building's structural steel, A ground grid

5. INSTALLATION

5.1 TEMPLATE

· Tear off last page and use provided template to drill two 6-32 holes and one ½" hole on the proper location of the wall to mount the Wall Mount bracket as shown below.
(If the gang box is already installed on the wall then skip this step.)



· Using 2 screws, install wall mount to the wall.

*** CAUTIONS ***

Before mounting the STAR FINGER007 unit to the Wall Mount bracket, an operational test of the unit should be completed, because the locking pins will lock the unit to the Wall Mount. Removing the unit from the Wall Mount bracket after it has been snapped in place may cause damage to the bracket and prevent reattachment.

· Insert 5 O-Rings to the Wall Mount as indicated, then run the cable from the main unit through the center hole and snap in place the main unit to Wall Mount. Make sure that the main unit is securely locked in place with Wall Mount.

5.2 BACKUP BATTERY S/W

STAR FINGER007

FINGER007(of V4.70 or higher) has a S/W(reverse side – Template hole) for the backup battery connection, which is left open circuit to prevent any current consumption of backup battery(Figure : S/W setting). Before the FINGER007 installation, it needs to be connected so that backup battery can retain the memory during power failure.

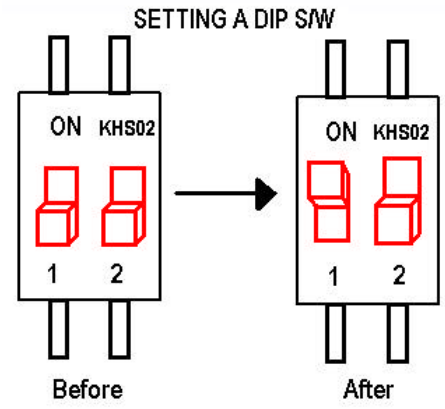


Figure : S/W SETTING

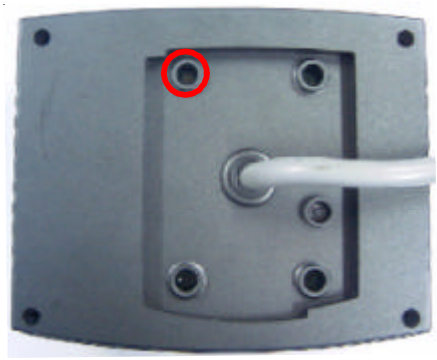


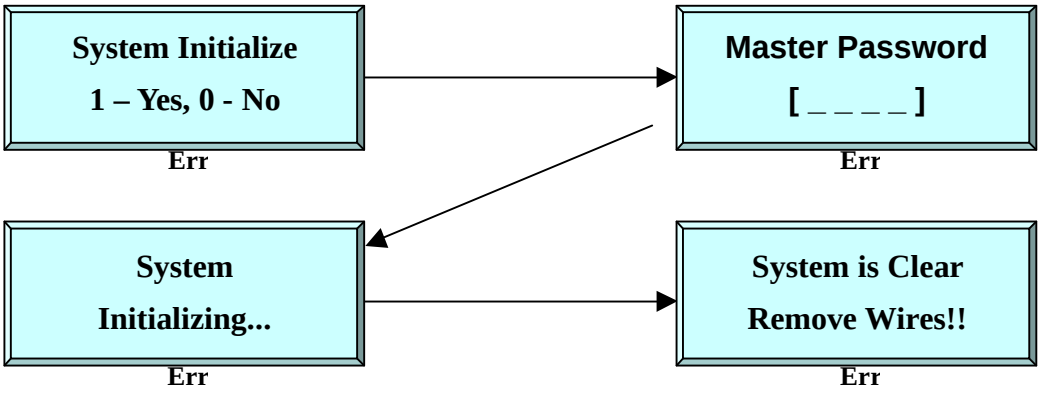
Figure : S/W location

5.3 SYSTEM INITIALIZATION (Extra Reader Port)

You must operate H/W initialization, before the FINGER007 installation.

Of V4.70 or higher, you must connect battery backup S/W in reverse side before H/W initialization.

You can H/W initialize using extra reader port. First, turn off the system power and connect 3 wires (pink, cyan and black(GND)), and turn on the system power. Then you can hear “Initialize beep” and display . picture.



1. . : If you want H/W initializing, enter key **<1>**.
2. . : Enter initial master password(**<3141>**).
3. . : Showing initializing.
4. . : After initializing – Main power **OFF** and separate 3 wire and main power **ON** again.

5.4 WIRING

5.4.1 POWER

- Connect (+) wire of DC 12V power to +12V(Red wire) terminal.
- Connect GND(-) wire of DC 12V power to GND(Black wire) terminal.

5.4.2 INPUT CONNECTIONS

Exit Button Connection (EXIT)

- Connect one wire from an Exit Button to EXIT(Orange wire).
- Connect the other wire from the Exit Button to the GND(Black wire).

Door Contact Sensor Connection (CONTACT)

- Connect one wire from a Door Contact Sensor to CONTACT(Yellow with Red stripe).
- Connect the other wire from the Door Contact Sensor to GND(Black wire).

Auxiliary Input Connection (Applied IN1, IN2)

- Connect one wire from an Auxiliary Input Device to one of the IN1(Green wire), IN2(Green with White stripe).
- Connect the other wire from the Auxiliary Input Device to GND(Black wire).

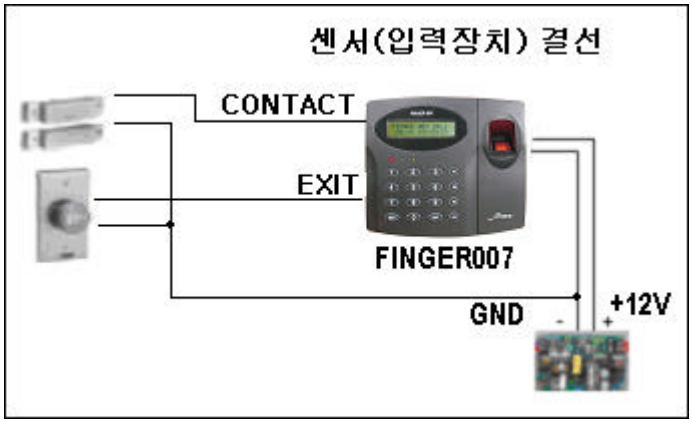


Figure : INPUT DEVICES CONNECTION

5.4.3 OUTPUT CONNECTIONS

Door Lock (Power Fail Safe) Connection (Relay 1)

- Connect COM port of Relay 1 to + 12V.
- Connect NC port of Relay 1 to (+)wire of door lock device.
- Connect GND port to (-)wire of door lock devices.

Door Lock (Power Fail Secure) Connection (Relay 1)

- Connect COM port of Relay 1 to + 12V.
- Connect NO port of Relay 1 to (+)wire of door lock device
- Connect GND port to (-)wire of door lock devices

Alarm Device Connection (Relay 2)

- Connect COM port of Relay 2 to + 12V.

- Connect NO port of Relay 2 to (+)wire of Alarm devices.
- Connect GND port to (-)wire of Alarm devices

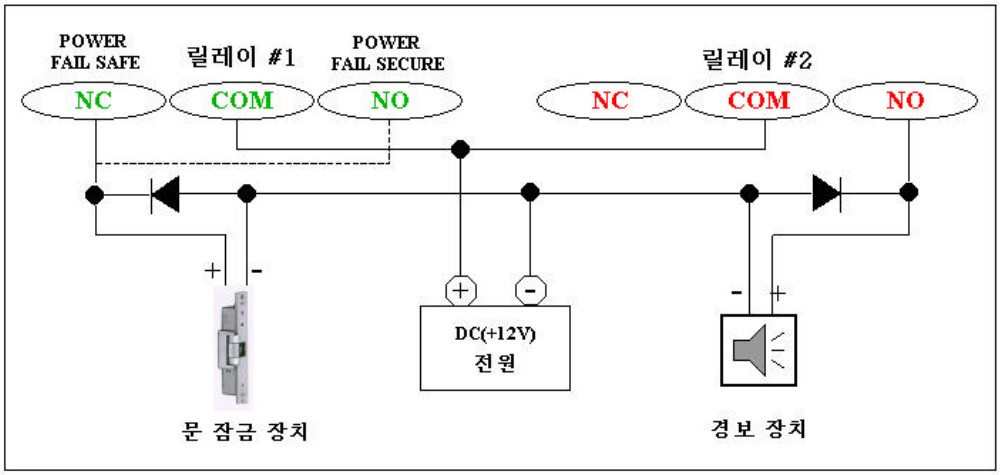


Figure : DOOR LOCK, ALARM DEVICE CONNECTIOIN

CAUTION : Please add one DIODE as shown above.
DIODE : Fast recovery DIODE(current : Min. 1A), 1N4001 ~ 1N4007 or similar

5.4.4 READER CONNECTIONS(Extra Reader)

Proximity Reader Connection

- Connect (+)wire of the Proximity Reader to +12V(Red wire)
- Connect (-)wire of the Proximity Reader to GND(Black wire)
- Connect Data-0 wire of the Proximity Reader to DATA0(Pink wire)
- Connect DATA-1 wire of the Proximity Reader to DATA1(Cyan wire)

· **Compatible Readers(Extra Reader) :**

FINGER007/iPFINGER007: Standard 26bit Wiegand Format Proximity Readers
Standard 26bit Wiegand + 8bit Burst Format Proximity and keypad Reader
FINGER007SR : Standard 34bit Wiegand Format Proximity Reader
Standard 34bit Wiegand + 8bit Burst Format Proximity and keypad Reader

· **Recommended Readers :**

FINGER007 : RF-TINY, RF10/20/30/70/500, RFK101, FGR006, FGR006EX
iPFINGER007: iP10/20/30, iPK101
FINGER007SR : SR10/20/30, SRK101, FGR006SRB

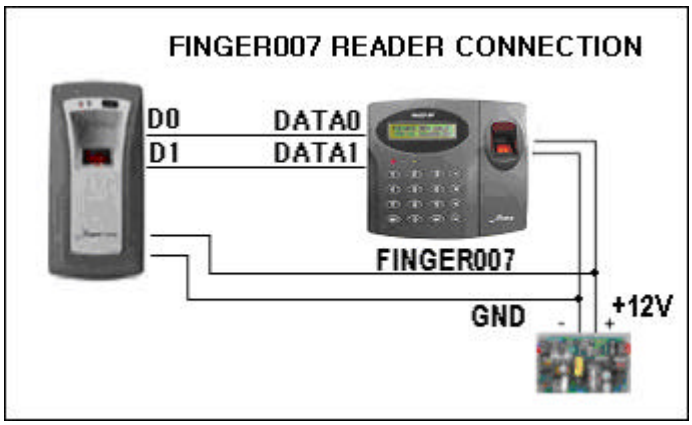


Figure : READER CONNECTION

6. COMMUNICATIONS

6.1 RS232 COMMUNICATION PORT CONNECTION

A 9-pin connector (Serial communication connector, female) is required to connect the **FINGER007** to a host computer via RS232 communication Please follow the instructions.

- Connect RS232-TX port of **FINGER007** to the pin 2 of the 9-pin connector.
- Connect RS232-RX port of **FINGER007** to the pin 3 of the 9-pin connector.
- Connect RS232-GND of **Finger007** to the pin 5 of the 9-pin connector.
- Plug in the 9-pin connector to COM1 or COM2 Port of the host PC.
- Install and run **FINGER007** Application Software.

6.2 RS-422 COMMUNICATION PORT CONNECTION

6.2.1 RS-422 CONNECTION (STAND ALONE)

RS422/RS232 converter(CNP200) is required to use RS422 communication between the **FINGER007** and a host computer. Please follow the instructions.

- Connect RS422-TX(+) of the **FINGER007** to RS422-RX(+) port of the converter.
- Connect RS422-TX(-) of the **FINGER007** to RS422-RX(-) port of the converter.
- Connect RS422-RX(+) of the **FINGER007** to RS422-TX(+) port of the converter.
- Connect RS422-RX(-) of the **FINGER007** to RS422-TX(-) port of the converter.
- Plug in the RS232 9pin connector of the converter to the COM1 or COM2 Port of the PC.
- Install and run **FINGER007** Application Software.

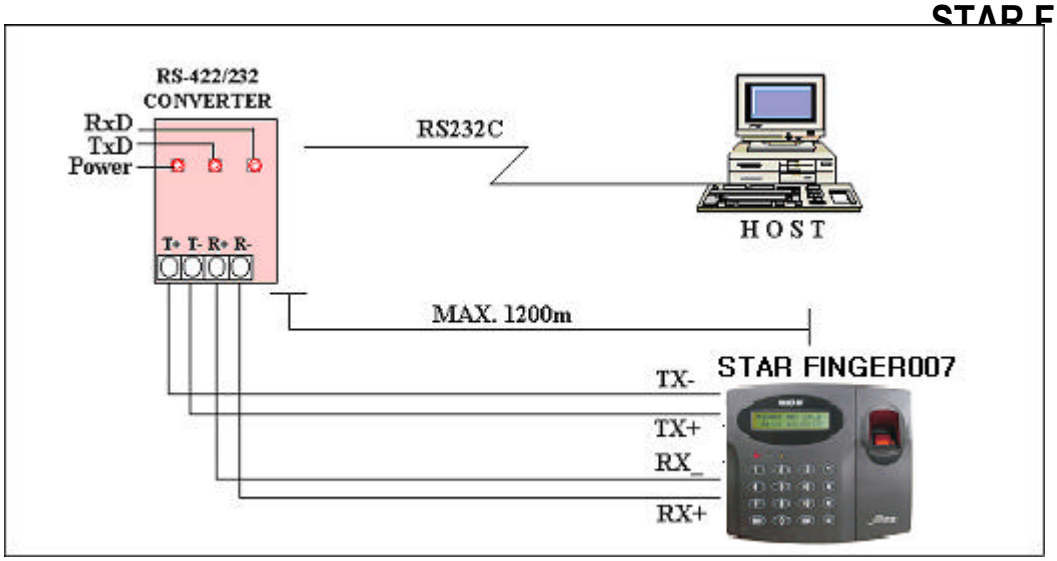


Figure : RS-422 Communication between **FINGER007** and Host Computer

6.2.2 RS-422 CONNECTION (MULTIPLE FINGER007 CONNECTIONS)

RS422/RS232 converter is required to use RS422 communication between multiple **FINGER007s** and a host computer. Please follow the following instructions.

First, you have to connect all RS422 port of all **FINGER007s** in parallel.

- Connect RS422-TX(+) of one **FINGER007** to RS422-TX(+) of another **FINGER007**.
- Connect RS422-TX(-) of one **FINGER007** to RS422-TX(-) of another **FINGER007**.
- Connect RS422-RX(+) of one **FINGER007** to RS422-RX(+) of another **FINGER007**.
- Connect RS422-RX(-) of one **FINGER007** to RS422-RX(-) of another **FINGER007**.

Second, you have to connect one of RS422 port of **FINGER007** to RS422/RS232 converter.

- Connect RS422-TX(+) of the one **FINGER007** to RX(+) port of the converter.
- Connect RS422-TX(-) of the one **FINGER007** to RX(-) port of the converter.
- Connect RS422-RX(+) of the one **FINGER007** to TX(+) port of the converter.
- Connect RS422-RX(-) of the one **FINGER007** to TX(-) port of the converter.
- Plug in the RS232 9pin connector of the converter to the COM1 or COM2 port of the PC.
- Install and run **FINGER007** Application Software.

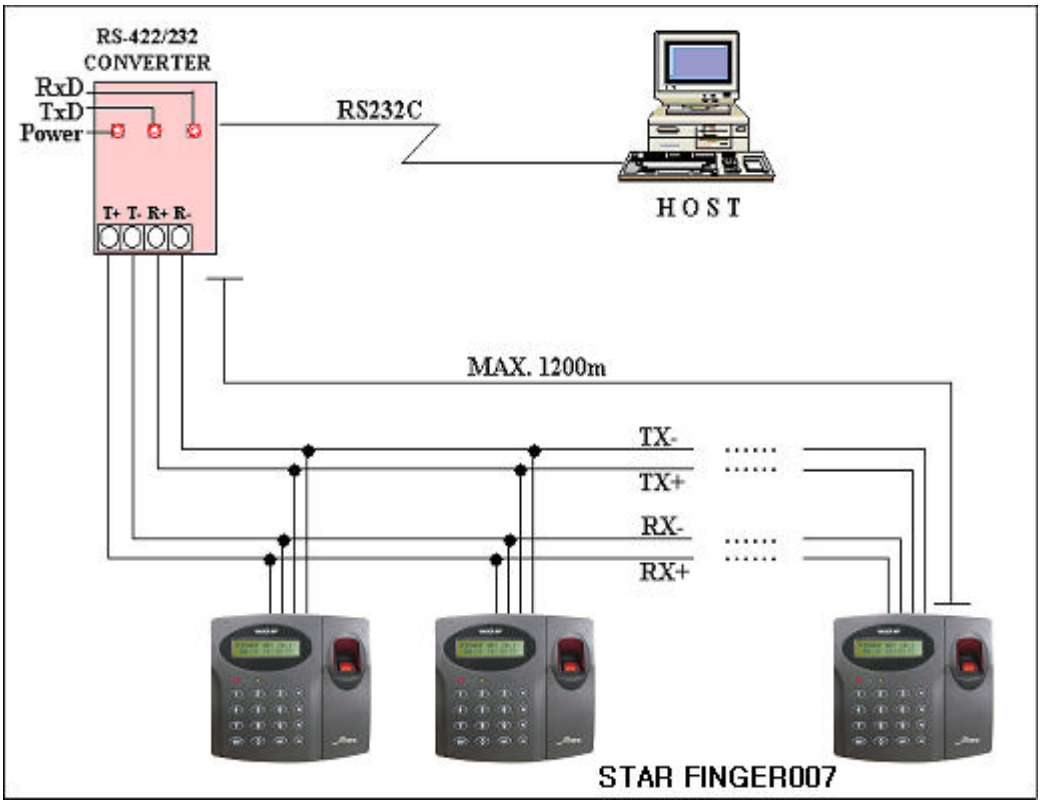


Figure : RS-422 Communication between FINGER007s and Host Computer.

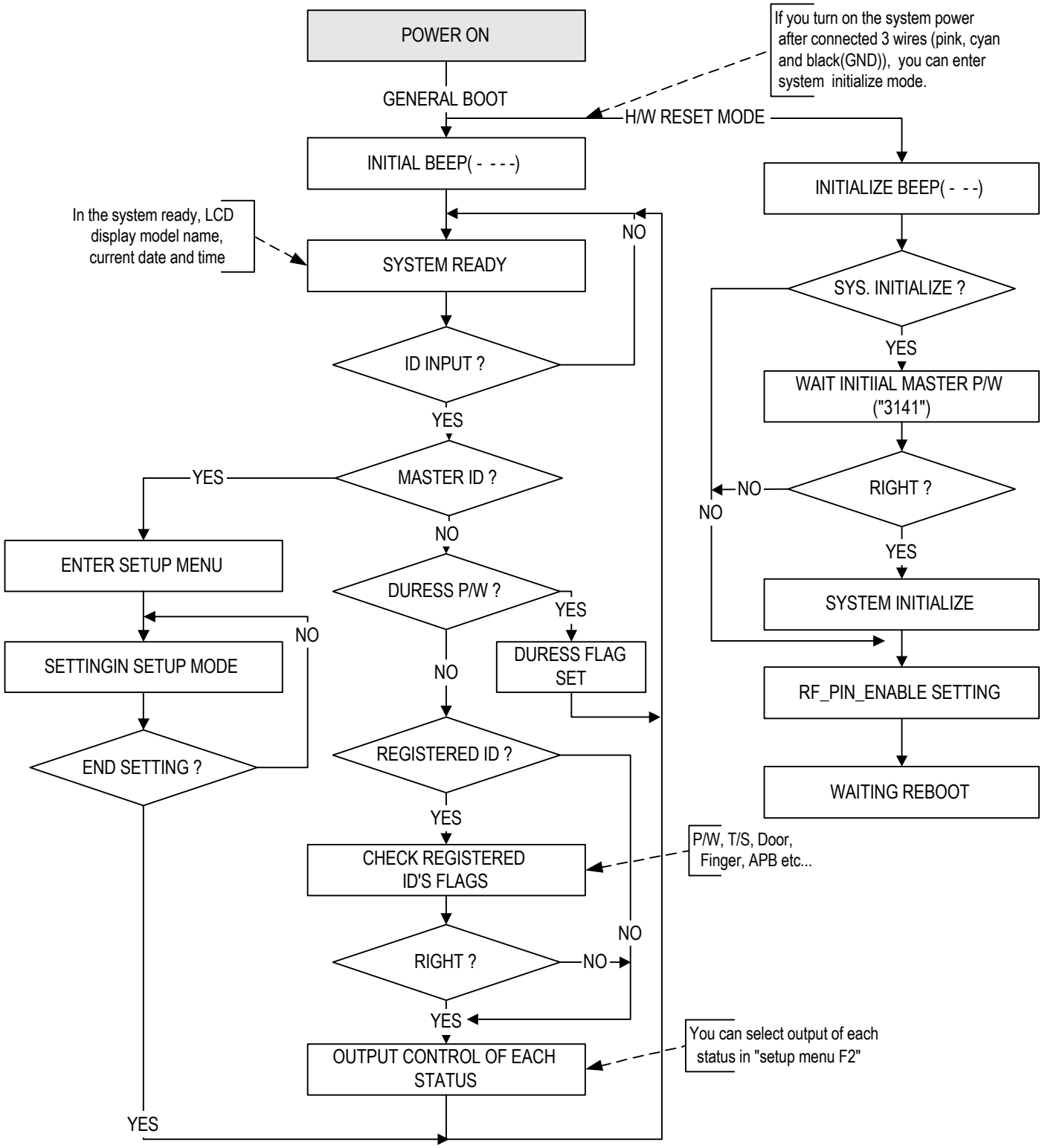
6.3 DIAL UP MODEM

Please, see the Software manual.

6.4 TCP/IP CONVERTER (EXTERNAL VERSION)

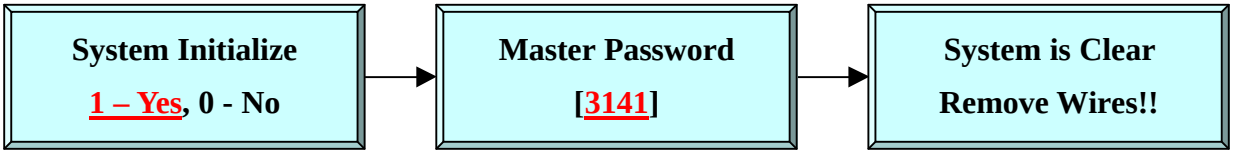
Please, see the Software manual.

7. BASIC SETTINGS



7.1 INITIALIZATION OF FINGER007

Before system installation and when you can't enter setup menu(system error or something wrong) then you have to H/W initialize. You can H/W initialize using extra reader port. Turn off the system power and connect 3 wires (pink, cyan and black(GND)), and turn on the system power. (**Ref. 5.3 FINGER007 INITIALIZATION**). Initializing will erase all stored data incl. registered IDs event data. Then you have to setting system parameter.
Before first installation, you must H/W initialize.
In case of over V4.70, you must connect battery backup S/W in reverse side before H/W initialization.

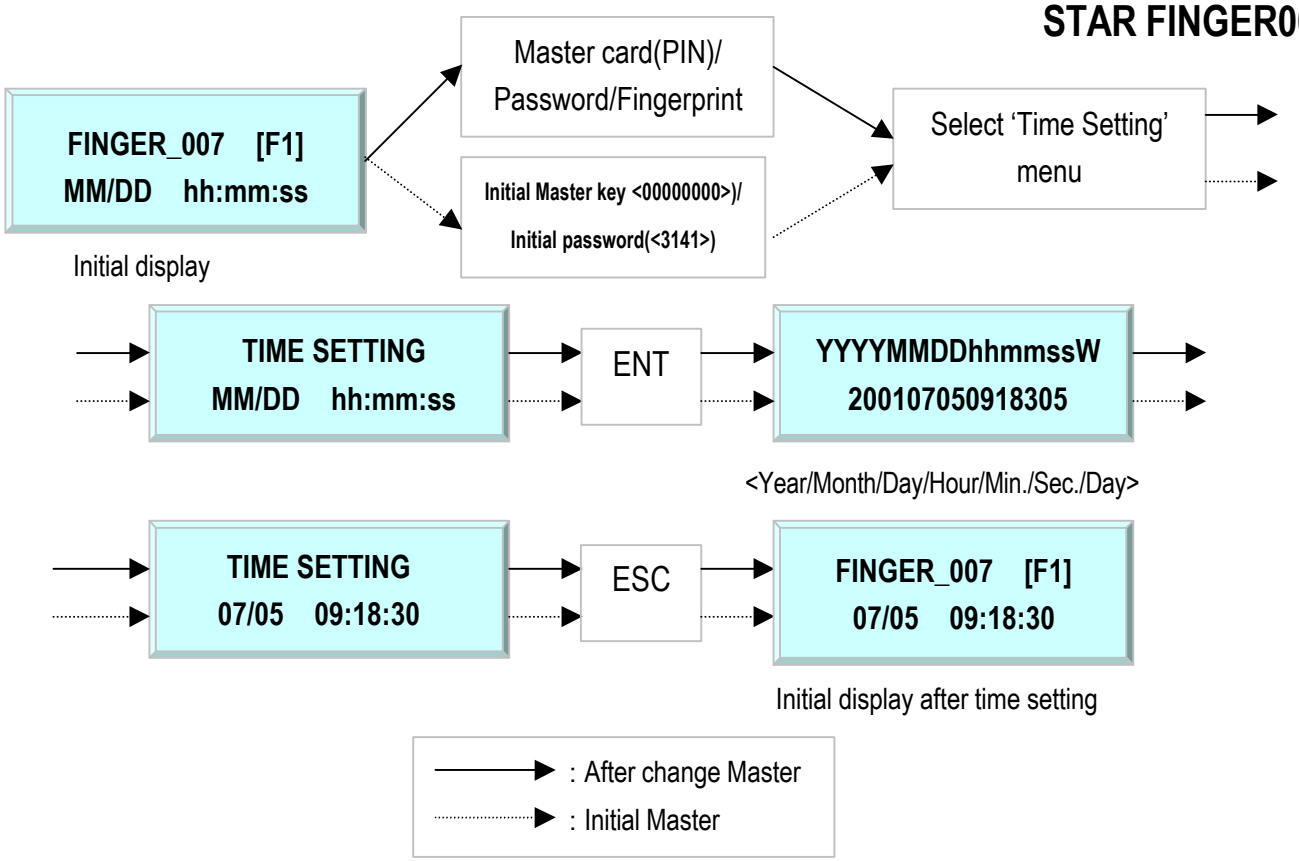


7.2 HOW TO ENTER THE SETUP MENU

To setup or to change the **FINGER007** settings, you have to enter the **SETUP MENU** first. To do so, press the 8 times <0> key for **Master ID(**Default setting "00000000") and **<ENT>** key and press **Master P/W** (Default setting "3141") then you can get into SETUP MENU. There are 4 main SETUP MENU and you first get into [SETUP MENU F1]. You can move to other SETUP MENU by pressing <F1> key for [SETUP MENU F1], <F2> key for [SETUP MENU F2], <F3> key for [SETUP MENU F3] and <F4> key for [SETUP MENU F4]. There are several **SUB MENU** in the main SETUP MENU and you can scroll up and down the SUB MENU by pressing <4> and <6> key in the main SETUP MENU. If you press <ESC> key then FINGER007 will exit the SETUP MENU then return to normal operation. You can also change the Master ID in the [SETUP MENU F1].
The Master ID for **FINGER007SR** is 10 times <0> key (Default setting "0000000000"), and default Master P/W is <3141>.

7.3 DATE AND TIME SETTING

Select [TIME SETTING] in the [SETUP MENU F1] and enter the Year / Month / Date / Hour / Minute / Second / Day(Total 15 digits) as shown below. LCD will display the new Date and Time after the time setting completed but year and day will not be displayed. **FINGER007** has 24 hours system and day codes are 1 for Sunday, 2 for Monday, 3 for Tuesday, 4 for Wednesday, 5 for Thursday, 6 for Friday and 7 for Saturday. The Master ID for **FINGER007SR** is 10 digits number (Default setting "0000000000").

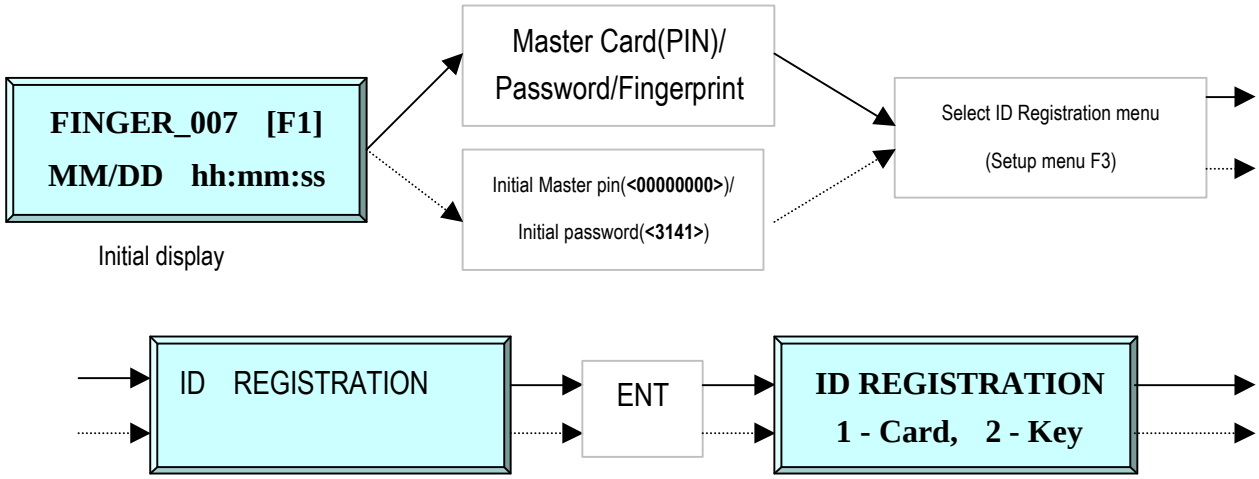


→ **Day code** 1 : Sun., 2 : Mon., 3 : Tue., 4 : Wed., 5 : Thu., 6 : Fri., 7 : Sat.
For example, **<200106071330253>** for Tuesday, June 7, 2001 01:30:25PM.

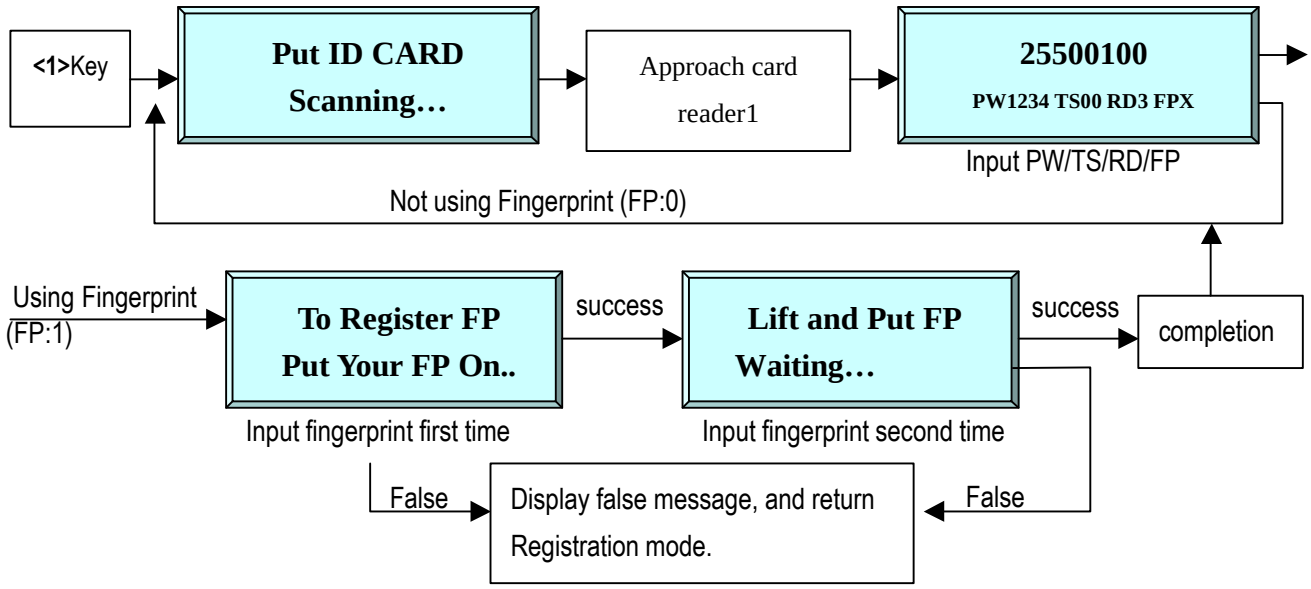
7.4 ID REGISTRATION

You can register the User ID into **FINGER007**. Select [SETUP MENU F3] → [ID REGISTRATION] then follow the steps below.

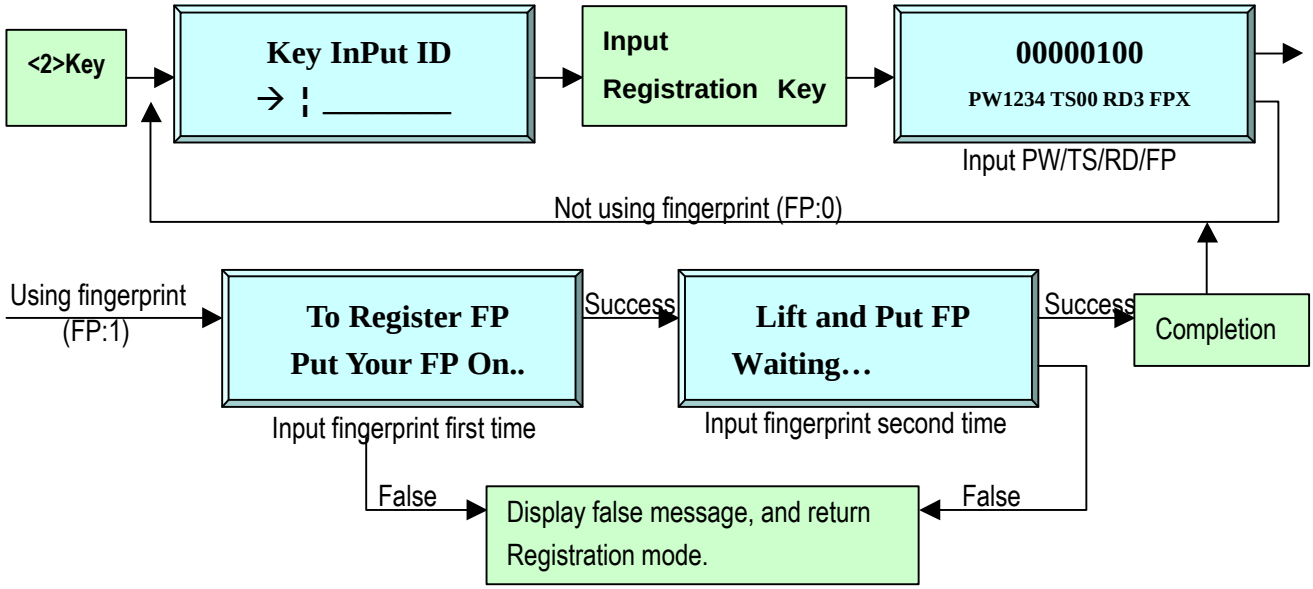
The Master ID for **FINGER007SR** is 10 digits number(Default setting "0000000000").



1. Registration by RF Cards (**FINGER007** only)



2. Registration by Keypad (**FINGER007** & **FINGER007P**)



3. After ID Registration complete, return initial display by enter **<ESC>** Key.
4. When register more than one ID, register first ID and continuously register other IDs.
5. If the ID number has a fingerprint already, in case of re-registration, the current fingerprint should be scanned first.
6. You can't register using RF card in **FINGER007P**.

- The [ID] is Personal Identification Number What you can use RF Card or Keypad. In case of RF Card, ID number consists of 3-digits Facility code from 000 to 255 and 5-digits ID number form 00000 to 65535 so that the 8-digits ID number can not exceed 25565535. But, in case of Keypad, you can use 4 ~ 8 digit for ID number. (ID number of **FINGER007SR** has 10-digits decimal numbers.)

- The [PW] is for password input the password is needed to access doors when the controller is operating in RF+Finger(P/W) or RF+P/W+Finger mode. But regardless of the operating mode, it is necessary to input a password when registering.

- The [TS] is Time Schedule code (00-10). [TS] is the Time Schedule for the Main Reader, Extra Reader. When you present the card to Reader then the cardholder is only allowed the access of the door during the Time Schedule code entered to TS__ . To control the accessible Time Schedule for each cardholder, you must setup the Time schedules first and enter the Time Schedule code here. If you want to access the door anytime for the cardholder then enter default Time Schedule code '00' for the value.

- The [RD] is reader usage codes for the cardholder. If you put '1' for RD then Main Reader is accessible and if you put '0' for RD then the cardholder can not access through the Main and Extra Reader, and **FINGER007** generates an error message "Access Door Error!" and displays on the LCD. To get access through all Readers, you have to input "3" value for RD.

- The [FP] is for using fingerprint. If "1" is entered for the value, the user has to register fingerprint. And the user certification of fingerprint in RF+Finger(P/W) and RF+P/W+Finger mode. If "0" is entered for the value, fingerprint substitute by password.

8. OPERATION

8.1 NORMAL OPERATION

Power ON

When the Power is applied to **FINGER007**, the RED LED is turned on.

Registered Card Reading

When a registered card (or PIN) is read, the Door(Relay 1) will open for 3 seconds(Defaults) with the Green LED on.

Exit Button

To request for exit from the inside, an Exit Button(or Extra Reader) can be used. The Door(Relay 1) will open for 3 seconds(Defaults) with the GREEN LED on.

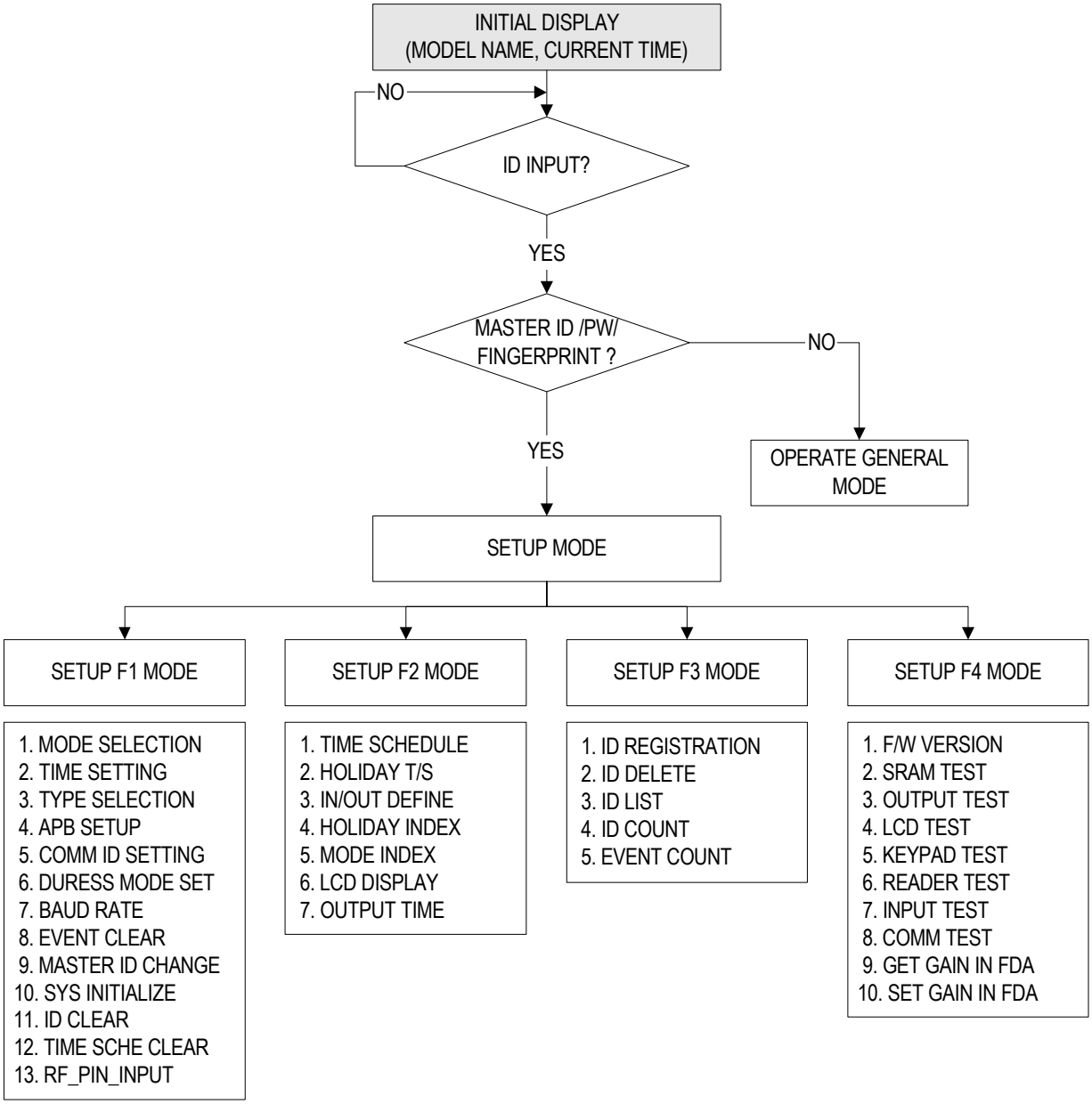
Alarms (unregistered/password/fingerprint/time schedule/door ERROR)

When an unregistered card is read, wrong password is input, wrong fingerprint is input, over the time schedule, and access wrong door, the access is denied and the alarm(Relay 2) will be activated for 3 seconds(Defaults) with RED LED on.

8.2 DEFAULT SETTING

When you operate the FINGER007 first time or you initialize the **FINGER007**, the controller will setup all values defaults (factory settings). You can change the settings for desired application.
Please refer to the APPENDIX for the default setting values.

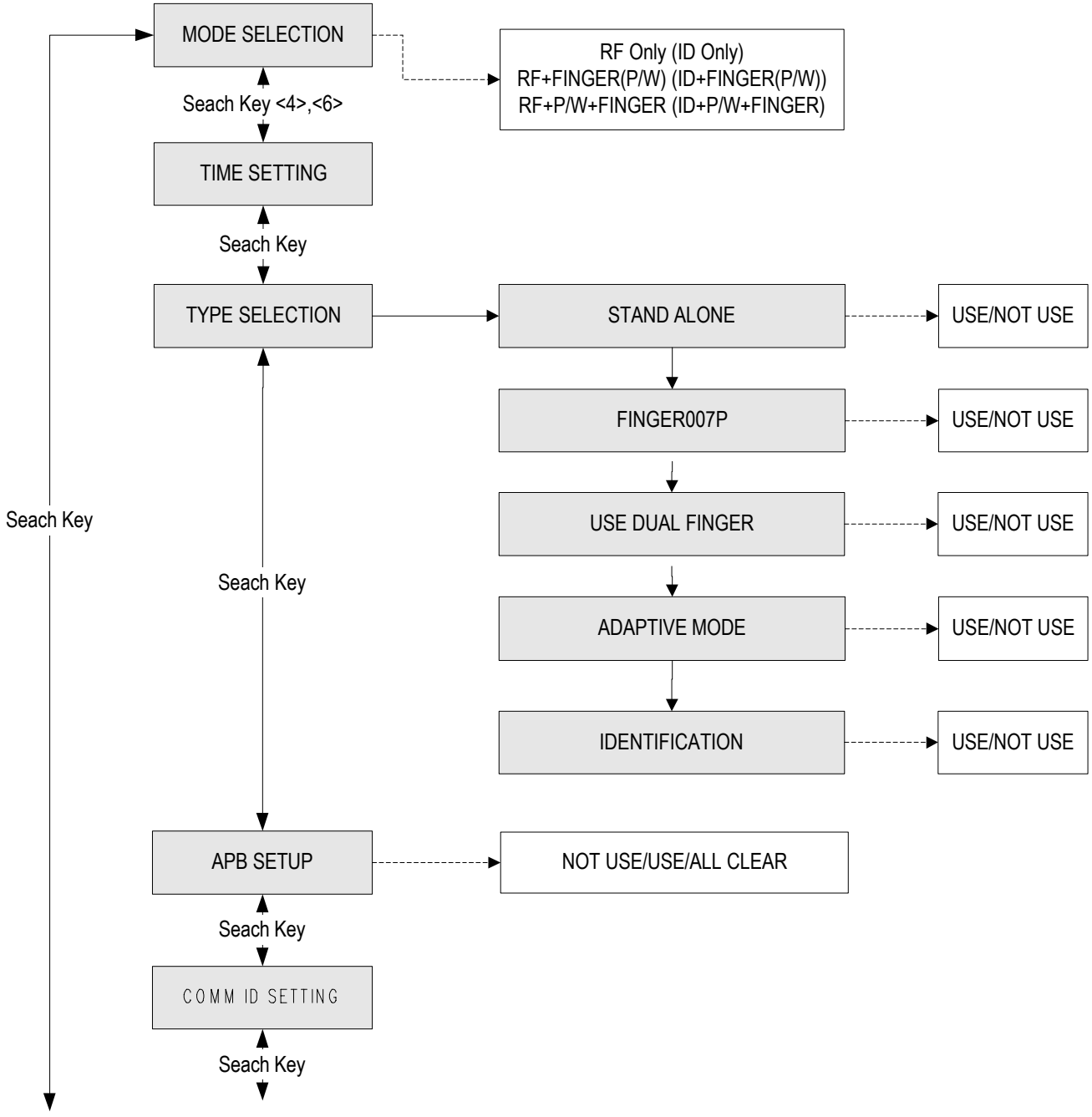
9. SETTING CHANGES

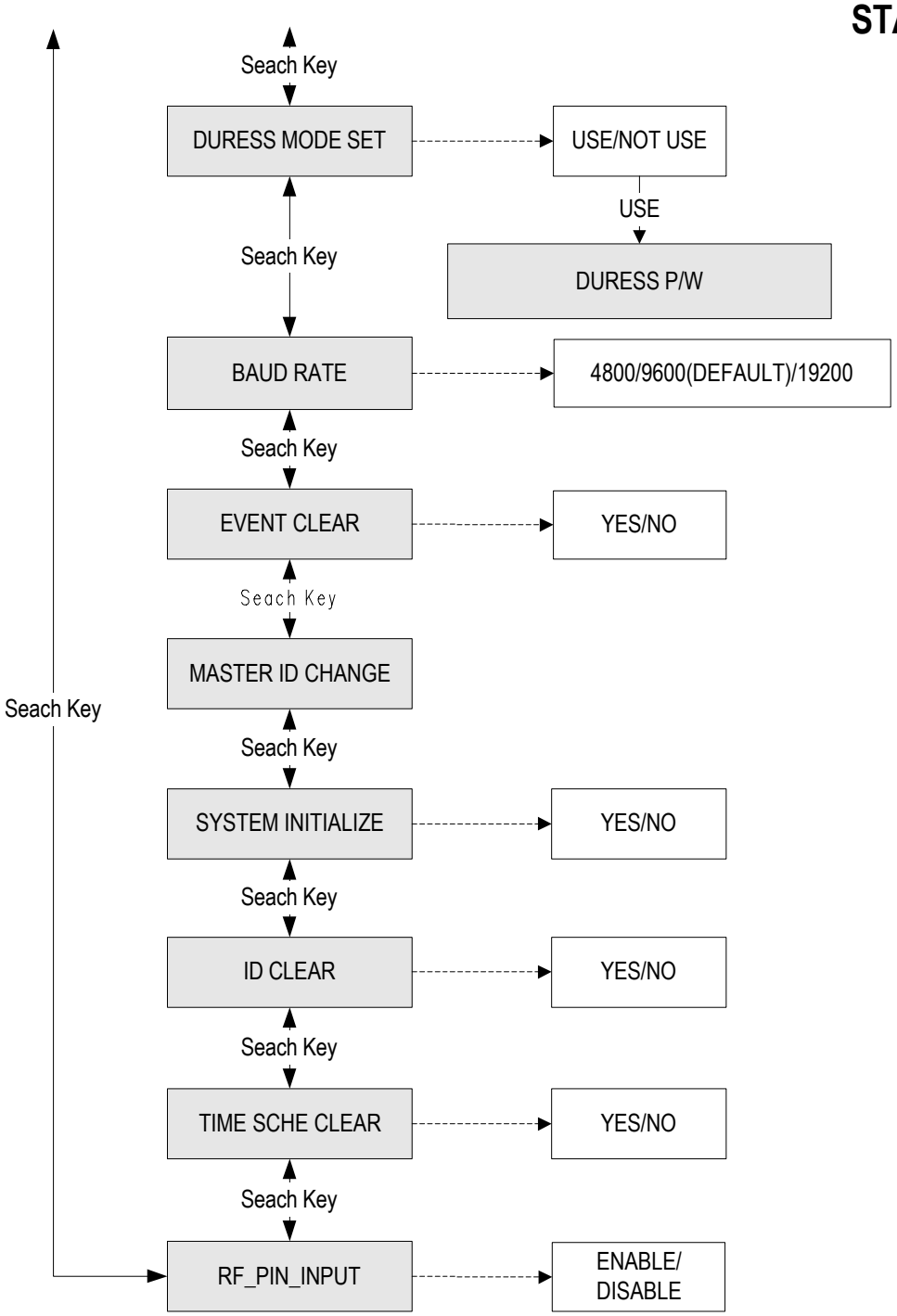


.. To setup or to change the **FINGER007** settings, you have to enter the SETUP MENU first. To do so, input Master ID(Default setting “00000000”), input Master P/W(Default setting “3141”) and input Master Fingerprint then you can get into SETUP MENU. There are 4 main SETUP MENU and you first get into [SETUP MENU F1]. You can move to other SETUP MENU by pressing <F1> key for [SETUP MENU F1], <F2> key for [SETUP MENU F2], <F3> key for [SETUP MENU F3] and <F4> key for [SETUP MENU F4]. There are several SUB MENU in the main SETUP MENU and you can scroll up and down the SUB MENU by pressing <4> and <6> key in the main SETUP MENU. If you press <ESC> key then **FINGER007** will exit the SETUP MENU and return to normal operation.

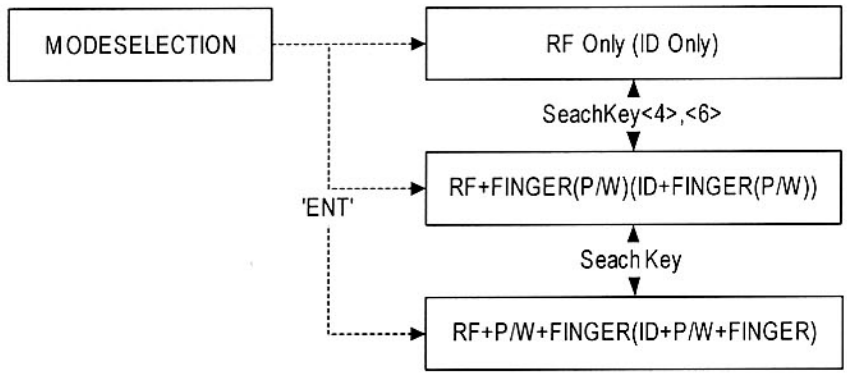
The Master ID for **FINGER007SR** is 10 times <0> key(Default setting).

9.1 SETUP MENU F1




Seach Key
DURESS MODE SET
USE/NOT USE
USE
DURESS P/W
Seach Key
BAUD RATE
4800/9600(DEFAULT)/19200
Seach Key
EVENT CLEAR
YES/NO
Seach Key
MASTER ID CHANGE
Seach Key
SYSTEM INITIALIZE
YES/NO
Seach Key
ID CLEAR
YES/NO
Seach Key
TIME SCHE CLEAR
YES/NO
Seach Key
RF_PIN_INPUT
ENABLE/
DISABLE
Seach Key

9.1.1 READER MODE SETTING

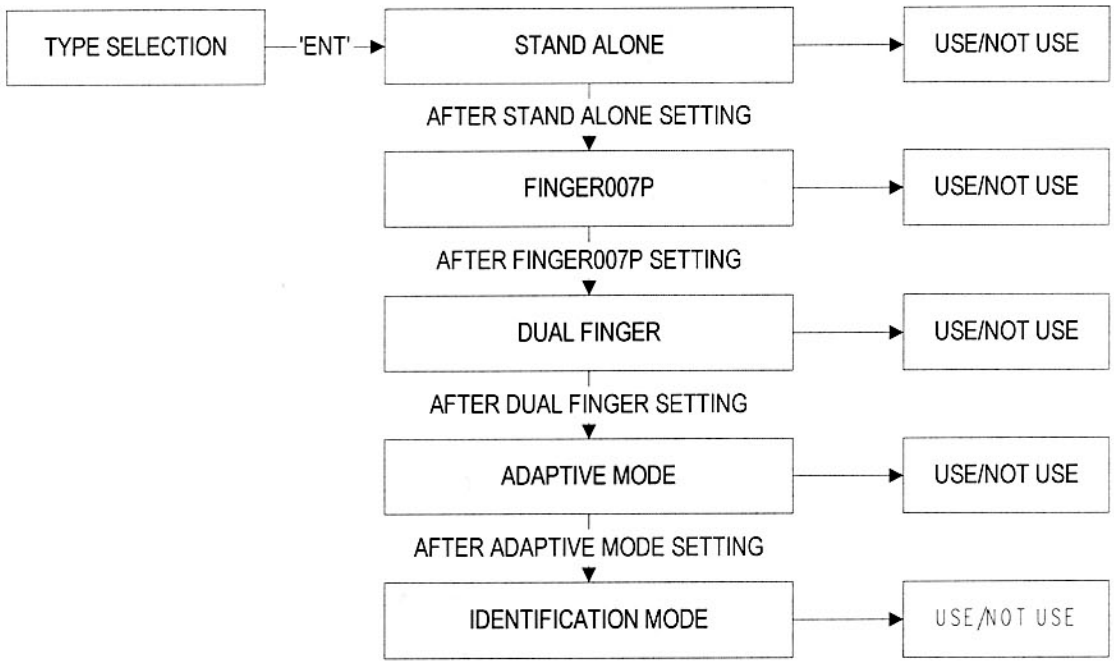


MODE SELECTION **RF ONLY**	This Menu is to select operating mode. You can choose whether to use password(or fingerprint) to each access or not. The lower line on the LCD indicates the current operating mode. Press **<ENT>** key to change the mode.
MODE SELECTION **-->RF ONLY**	Then, this figure appears on the LCD, press **<4>** key or **<6>** key to toggle the mode, and finish selecting by pressing **<ENT>** key. For the next setting, use **<4>** and **<6>** keys. RF only : The door is accessible with the card(ID) alone. RF+FINGER(P/W) : To access the door, the card(ID) and the fingerprint (P/W) is needed. RF+PIN+FINGER : To access the door, the card(ID) and password and fingerprint are needed.
MODE SELECTION --RF+FINGER(P/W)	
MODE SELECTION -->RF+P/W+FINGER	

9.1.2 TIME SETTING

TIME SETTING **MM/DD hh:mm:ss**	The lower line on the LCD indicates present time. To set time, press **<ENT>** key.
YYYYMMDDhhmmssW ▮_____	Enter the correct information of the year, month, date, hour, minute, second, day code in due order, then the setting is finished. If the input information is out of range, an error message appears on the LCD and the current time value is to be kept. **Day code** 1 : Sun, 2 : Mon, 3 : Tue, 4 : Wed, 5 : Thu, 6 : Fri, 7 : Sat. EX) **<200306071330253>** →Tuesday, June 7, 2003 01:30:25PM.

9.1.3 TYPE SELECTION



USE STAND ALONE?
-->NOT USE

.. You can select whether the Stand Alone is used or not. Press **<4>** or **<6>** to toggle the mode, from **<NOT USE>** to **<USE>** or the reverse, and finish selecting by pressing **<ENT>** key.

NOTE: <USE> : system does not display **<event full>** message.

USE FINGER_007P?
-->NOT USE

.. After **<STAND ALONE>** setting, shifts automatically to this menu.

NOTE: If you use **FINGER007P**, then you have to setting by **<USE>**.

USE DUAL FINGER?
-->NOT USE

.. After **<FINGER007P>** setting, shifts automatically to this menu.

NOTE: In **DUAL FINGER MODE,** you can register two fingerprint per one ID. But dual mode fingerprint data cannot be used for single mode system.

USE ADAPTIVE MODE?
-->NOT USE

.. After **<DUAL FINGER>** setting, shifts automatically to this menu.

NOTE: In **ADAPTIVE MODE**, scanning quality is better then normal mode. But scanning speed is longer then normal mode.

IDENTIFICATION?
-->NOT USE

.. After <ADAPTIVE MODE> setting, shifts automatically to this menu.

NOTE: In **IDENTIFICATION MODE**, you can use 1:N certification. You can certify ID by only fingerprint certification. In Identification mode, you have to press **<ENT>** before fingerprint certification.

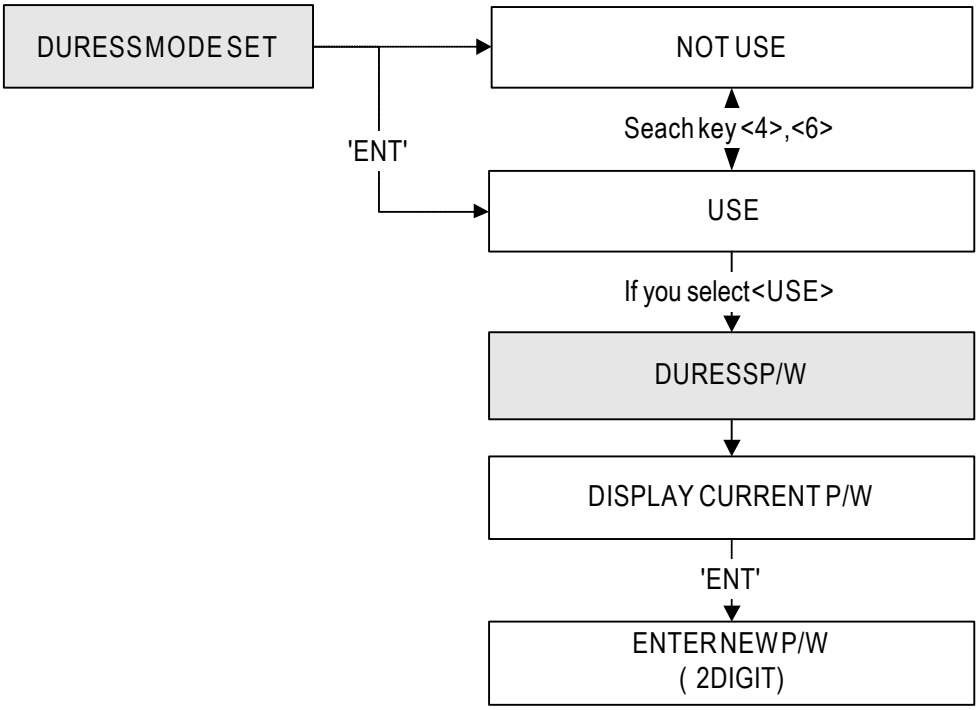
9.1.4 ANTI-PASS-BACK MODE SETTING

APB SETUP NOT USE	.. You can select whether the anti-pass-back(APB) mode is used or not. To change mode, press **<ENT>** key. **(It only applies when the Door has Exit Reader)**
APB SETUP **--> NOT USE**	.. Press **<4>** or **<6>** to toggle the mode, from **NOT USE** to **USE** or the reverse, and finish selecting by pressing **<ENT>** key. **NOT USE** : Anti-pass-back mode is not applied. **USE** : Anti-pass-back mode is separately applied. **All Clear** : Ignore all registered ID's APB flag only once.
APB SETUP **--> USE**	
APB SETUP **--> All Clear**	

9.1.5 COMMUNICATION ID(ADDRESS) DISPLAY

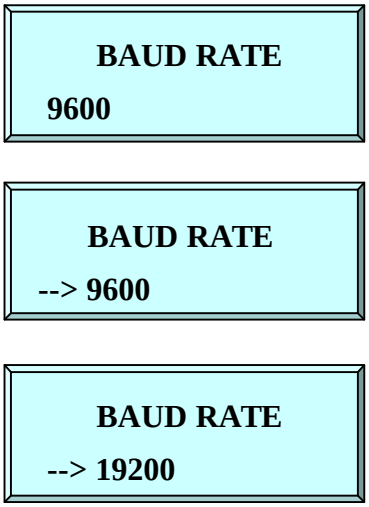
COMM ID SETTING	.. This is communication ID setting menu. To change the communication ID, press **<ENT>** key.
COMM ADDRESS **00**	.. The number on the LCD is the current communication ID(Device NO.) Press **<ENT>** key again to set a new communication ID.
COMM ADDRESS 01	? . When the cursor is blinking, enter a new ID(Two Digit number), then the setting is completed. **Possible ID is between 00 ~ 31 inclusive.**

9.1.6 Setting Duress Mode



DURESS MODE SET NOT USE	.. You can select whether the Duress mode is used or not. To change mode, press **<ENT>** key.
DURESS MODE SET --> USE	
DURESS P/W 00	.. If you select **USE**, then system display current DURESS P/W. To change P/W, press **<ENT>** key. **NOTE** : You can setting duress output in setup menu F2(in/out define). In case of Duress, enter the 2 digit Duress Password and press **<ENT>** and open the door using general process. If you registered ID, then duress output will be generated.
DURESS P/W 99	

9.1.7 BAUD RATE SETTING



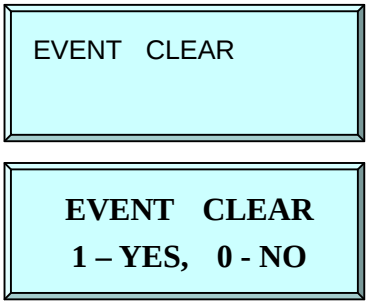
.. **FINGER007** supports 4800, 9600 and 19200 of baud rate and default setting is 9600bps. Wrong baud rate setting will cause communication errors and you have to set same baud rate to **FINGER007** and host PC. If you have communication problem, please check followings;

- Check COMM ID of **FINGER007** and host PC
- Check BAUD RATE of **FINGER007** and host PC
- Check communication port and cable
- Check COM port setup of host PC

Parity: None, Data Bit: 8 bit, Stop Bit: 1 bit

To change the baud rate, press **<ENT>** key and select desired baud rate by pressing **<4>** or **<6>** key then press **<ENT>** key.

9.1.8 EVENT CLEAR



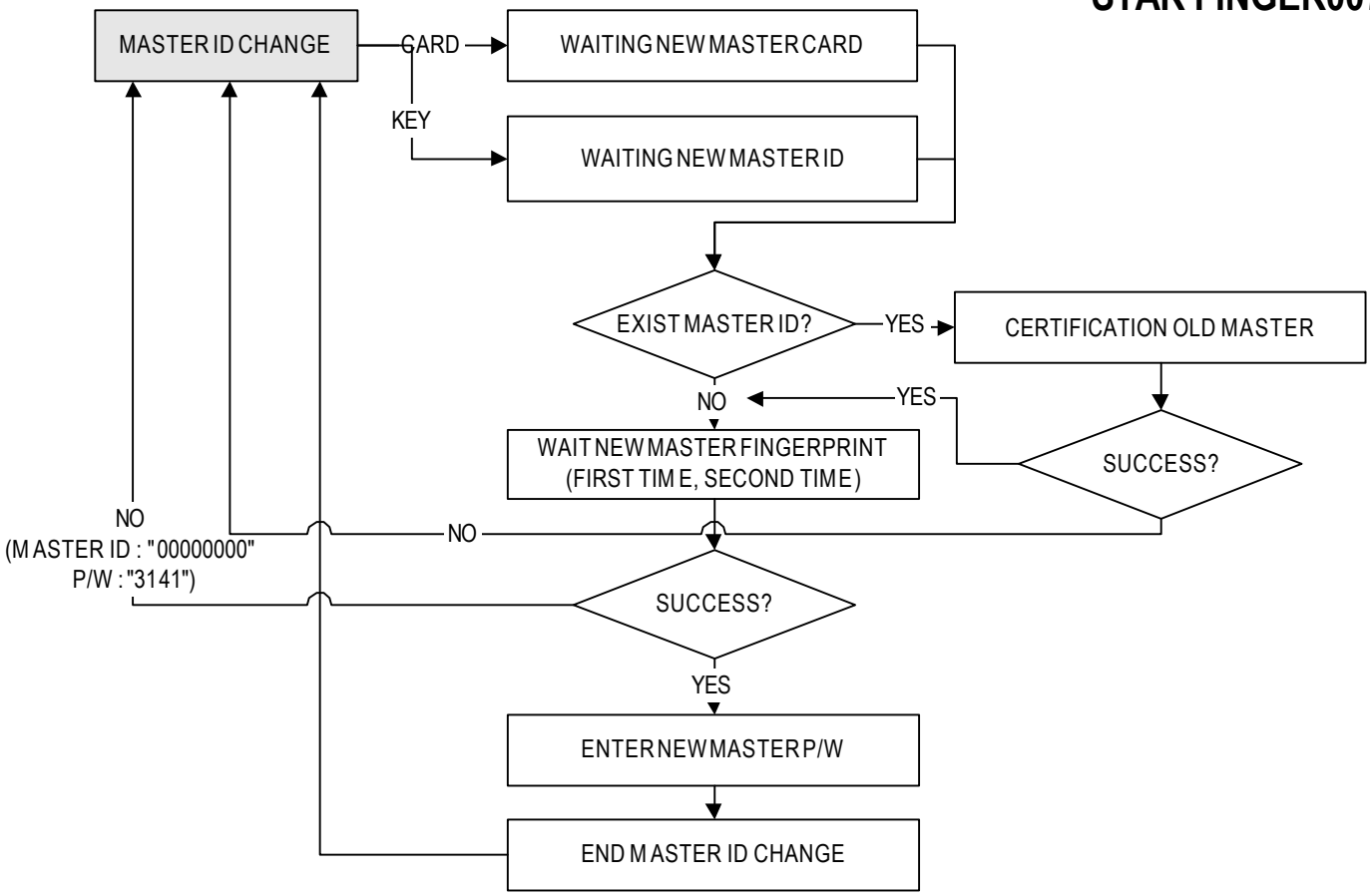
.. You can clear the event memory in this menu. Press **<ENT>** key then press **<1>** key to clear event memory or **<0>** key to cancel the operation

CAUTION : Before you clear the events, make sure that the stored events is not necessary to upload to the host PC otherwise you may lose important data.

9.1.9 MASTER ID CHANGE

STAR FINGER007

MASTER ID CHANGE	□. Press <ENT> key to change the current Master ID. You should use the new Master ID to access the SETUP MENU after you changed the Master ID. **Default Master ID/PW** **FINGER007** : "00000000"/"3141" **FINGER007SR** : "0000000000"/"3141"
CARD & Key Use **1-Card, 2-Key**	
Scanning ...	.. **FINGER007** is waiting for an RF card which is to be registered. The card number will appear with a beep as the card is read.
INPUT NEW MASTER [_____]	□. **FINGER007** is waiting for a keypad which is to be registered. **FINGER007** : 4 or 8 digits **FINGER007SR** : 10 digits ("0000000001" ~ "4294967295")
Put Master FP	.. A fingerprint for the new Master ID is needed to be scanned. **If there has been a Master ID already, the fingerprint of the ID should be scanned first**
Enter Password _	.. Enter a new Master password(four digits) and finish changing Master ID
Master Card Registered	.. The figure indicates that changing Master ID is finished successfully, and soon will return to the first figure of this menu.



9.1.10 SYSTEM INITIALIZE

SYS INITIALIZE
Sys Initializing 1 – Yes, 0 - No
System Initializing …

.. This operation will initialize the **FINGER007**. Press **<ENT>** key, if an initialization is needed. (First time installation or resetting in the event of a malfunction)

After the initialization, FINGER007 will return to the setup menu.

CAUTION : Initializing will erase all stored data in the memory.
(ID, EVENT, T/S, In/Out define, etc...)

9.1.11 CARD ID CLEAR

CARD ID CLEAR
Card ID Clear 1 – Yes, 0 - No

.. When you want to delete all User ID (Card ID), you can clear all User ID from the memory. Press <ENT> key then press <1> key to clear all User ID or <0> key to cancel the operation.

CAUTION : Before you clear all User ID, make sure that the registered User ID is no longer used otherwise you may lose all registered User ID.

9.1.12 TIME SCHEDULE CLEAR

TIME SCHE CLEAR
Time Sche Clear 1 – Yes, 0 - No

. When you want to delete all Time Schedule (01~10), you can clear all T/S from the memory. Press <ENT> key then press <1> key to clear all T/S or <0> key to cancel the operation.

CAUTION : Before you clear all T/S, make sure that the stored T/S is no longer used otherwise you may lose all stored T/S in the memory.

9.1.13 KEYPAD INPUT SETTING

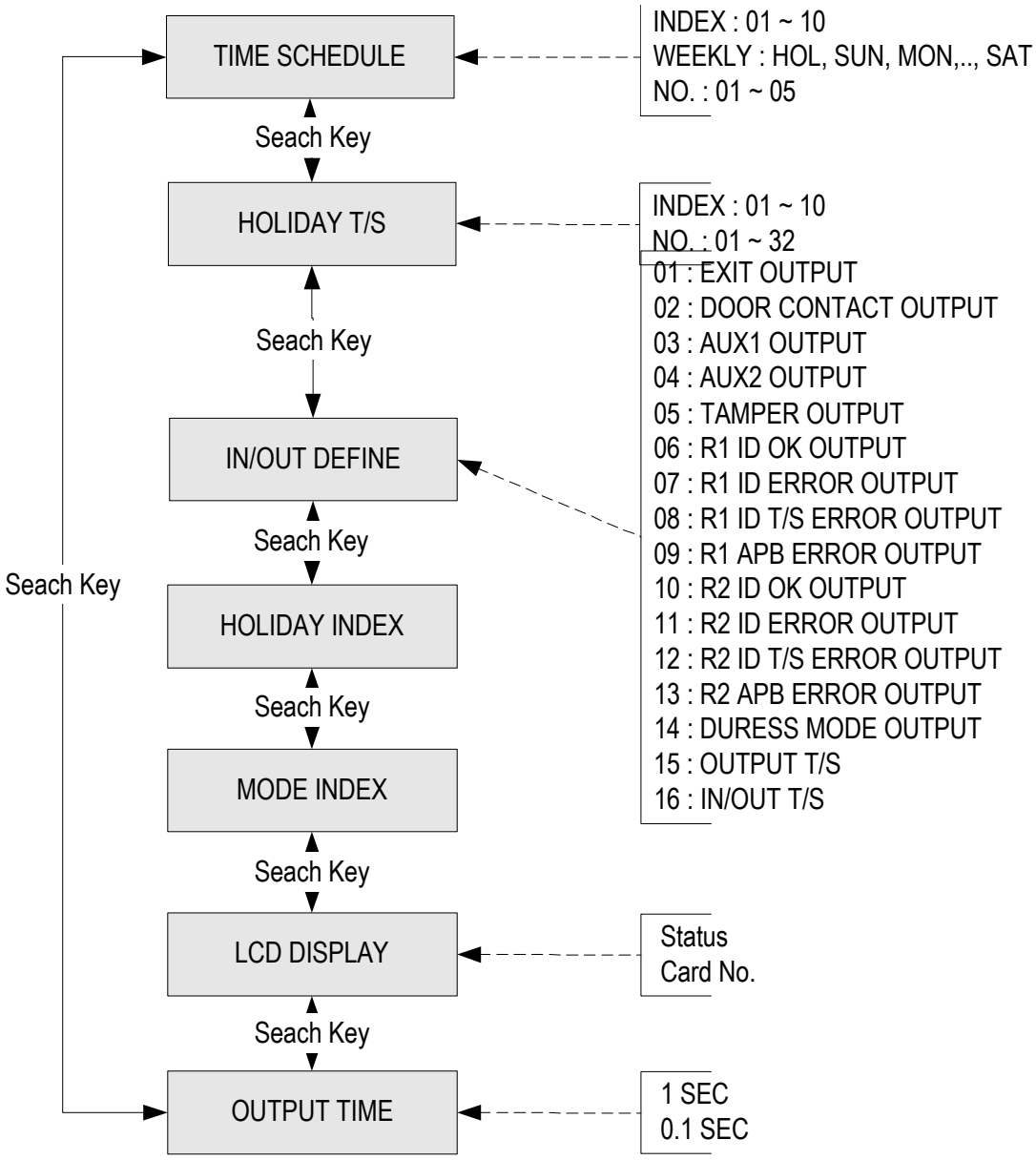
RF_PIN_INPUT ENABLE
RF_PIN_INPUT --> DISABLE

. You can enable PIN(card number) to be input through the keypad, so that someone who doesn't carry RF cards with him can access the door. When it is disabled, accessing the door by keypad will be denied.
Press **<ENT>** key to toggle the mode.

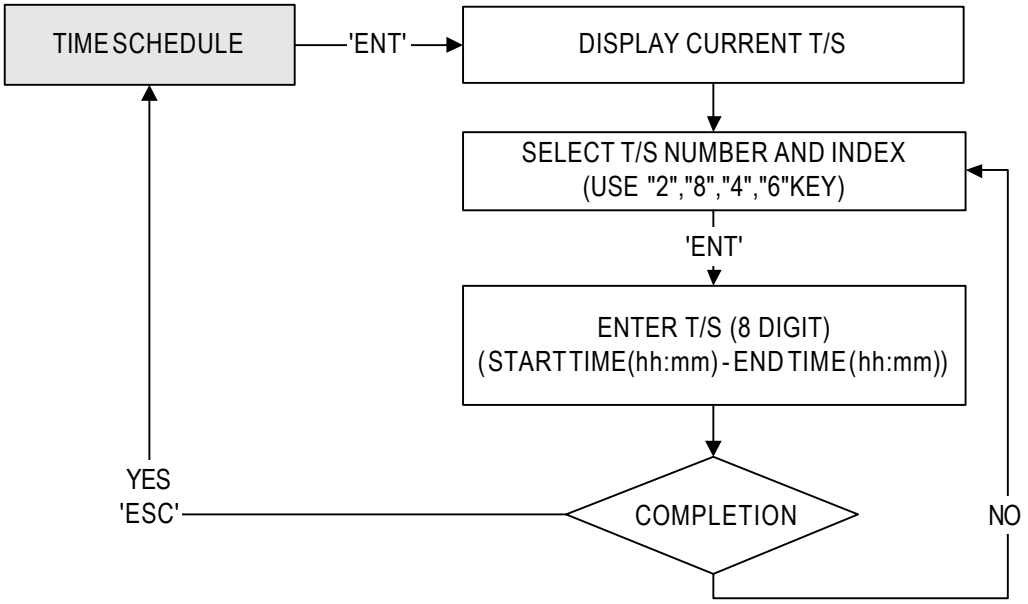
CAUTION: The default Master number, **"00000000"**, must be replaced with a new Master card number before disabling keypad input, or you **CANNOT** access the setup menu again.
In case of that, the only thing you can do is hardware initializing.

Do not use this menu in **FINGER007P**.

9.2 SETUP MENU F2



9.2.1 REGISTERING AND CHANGING TIME SCHEDULE



TIME SCHEDULE

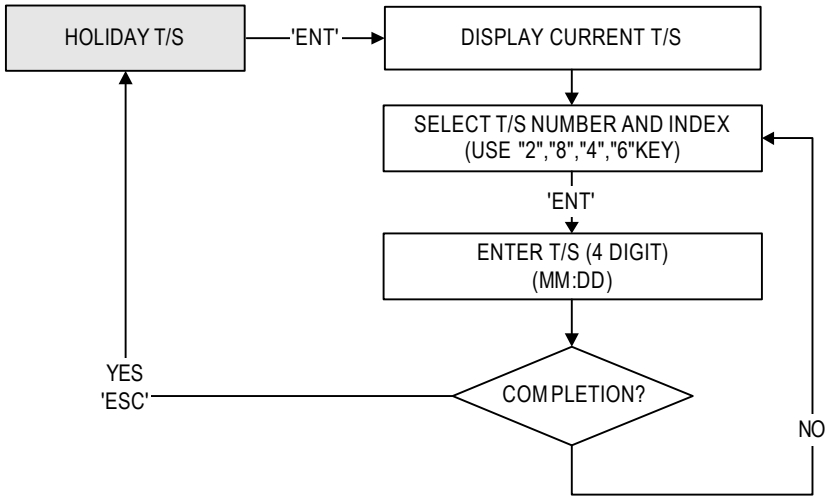
? . You may program time schedules to grant and restrict access for each user. There can be up to ten different schedules. A minimum of one schedule must be defined.
If only one schedule is programmed the most common setting allows access for all users 24 hours / day. A time schedule can be programmed for each day of the week and holidays, and five shifts can be defined for each day. To set time schedules, press **<ENT>** key from this menu.
If you want to set time schedules, press **<ENT>** key when this figure is displayed.

T/S : 01 HOL : 1 00:00 - 00:00

.. Press **<2>** key or **<8>** key to adjust the Time Schedule (T/S) number (1-10) and the day of the week (Mon-Sun and 'HOL'). Define which shift of the day (1-5), using the **<4>** key and **<6>** key. 'HOL' refers to specific holidays you will register. Press **<ENT>** key, and the cursor will blink, then enter the beginning time of the period, in the form of hour(2-digit):minute(2-digit) and the ending time in the same form. Then the lower line will indicate the defined period. For more schedules, repeat the process. To end time scheduling, press **<ESC>** key.

? Possible values for time scheduling
1) Time schedule number : 01 ~ 10 (Needed when IDs are registered)
2) A day of the week : MON, TUE, WED, THU, FRI, SAT, SUN, HOL
3) Index : 1 ~ 5(referred to the five periods of time of a day)

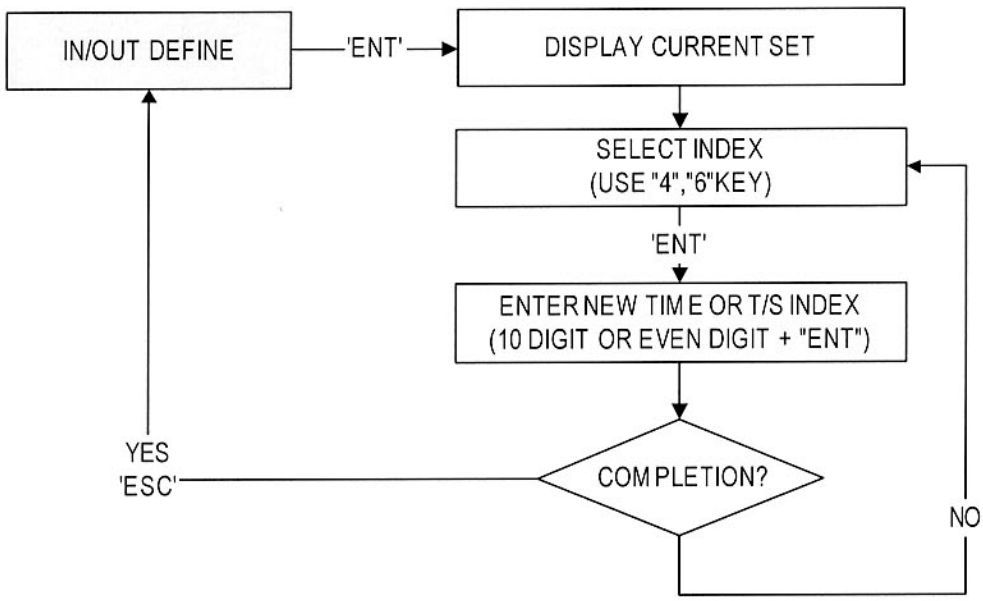
9.2.2 REGISTERING AND CHANGING HOLIDAY TIME SCHEDULE



HOLIDAY T/S	You can register up to 32 specified "holidays," per year for each schedule setting. There can be 10 other registration sets created, meaning holidays can be set for up to 10 years. Press **<ENT>** to register the days.
HOL T/S : 01 #01 00:00	With **<2>** key and **<8>** key, select the date registration set number (1~10), and with **<4>** key and **<6>** key, select the index for the days (1~32). Then, press **<ENT>** key, and the cursor will blink, then enter the date, in the form of Month (1~12):date, Then the LCD will indicate the defined date. Now, a day has been registered. For further registration, repeat the process.

. **1) Holiday Time schedule(Date registration set) number : 01 ~ 10(10 years)**
2) Index for the days : 01 ~ 32(32 days)

9.2.3 DEFINING OUTPUTS IN COMPLIANCE WITH INPUTS



IN/OUT DEFINE	.. You can program or deactivate each output to be generated and choose how long (in seconds) they will last. There are default values as seen in the table 2 below..
1. Exit Button 03 00 00 00 00	Select input sources by changing index No. with the keys **<4>** or **<6>**, and press **<ENT>** key, and you'll see a cursor blinking at the first digit, from the left, of the five couples of digit, which corresponds to relay1, relay2, TTL1, TTL2 and buzzer, respectively. Then enter the delay times(refer to the table below) one by one. Now, an inputs/outputs definition has completed. For further definition, repeat the process. To end defining inputs/outputs, press **<ESC>** key, and you will see the first figure of the menu. **NOTE** : The five couples of digit of [15] Output T/S and [16] Input/Output T/S are time schedule indexes.

9.2.4 HOLIDAY INDEX SETTING

HOLIDAY INDEX	.. Holiday Index is to link the Holiday Schedule (H/S) to Time Schedule. You can setup one of holiday index (01~10) to one of T/S index (01~10) so that the Holiday Time Code in the T/S can be applied for the Holidays in the T/S. Default H/D Index is '00' which means no holidays are applied to T/S. Select HOLIDAY INDEX menu and press **<ENT>** then select desired T/S INDEX (01~10) by pressing **<4>** or **<6>** key then press **<ENT>** key to input 2 digit H/D Index.
T/S Index : 01 **H/D Index : 01**	

9.2.5 READER TIME SCHEDULE SETTING

MODE INDEX 00

MODE INDEX 05

.. If You setup RF+FINGER(P/W) operating mode (Refer to MODE SELECTION), you can apply Time Schedule for MODE INDEX. During the time period of Time Code in the T/S, **FINGER007** will operate RF ONLY mode. And the rest of time period, **FINGER007** will operate RF+FINGER(P/W) mode.

To apply this function, you have to setup Time Schedules (T/S) and Holiday Schedules (H/S).

Select MODE INDEX then press **<ENT>** key. Enter 2 digit T/S index ('00' ~ '10').

9.2.6 LCD DISPLAY FORM SETTING

LCD DISPLAY STATUS

LCD DISPLAY → CARD NO

.. This is LCD display setting menu. You can select whether LCD form is STATUS or CARD number.

- **STATUS** : Display status of reading ID.
- **CARD NO** : Display reading ID number.

9.2.7 OUTPUT TIME UNIT SETTING

OUTPUT TIME 1 SEC

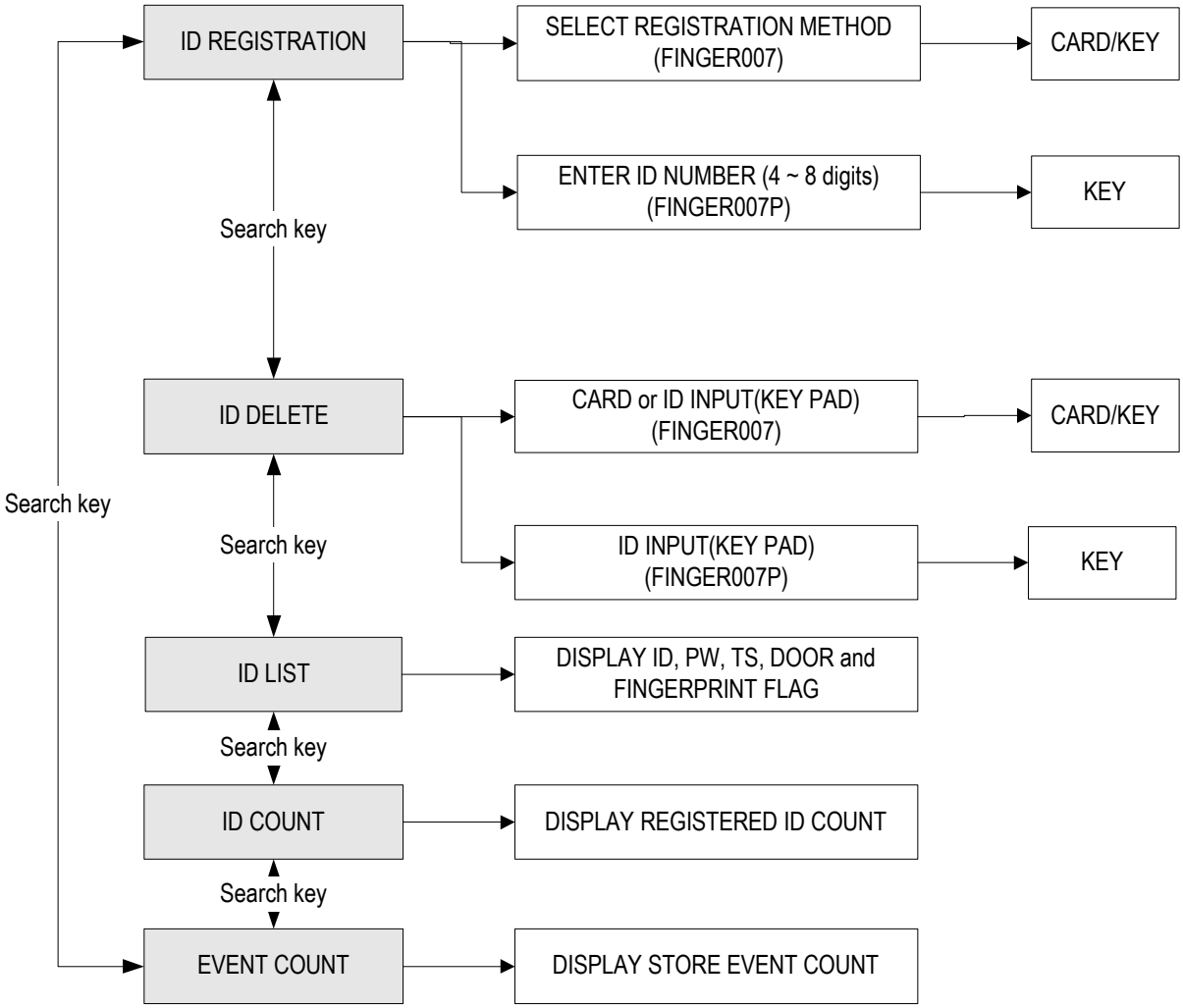
OUTPUT TIME → 0.1 SEC

.. This menu is to define time unit of 5 output ports.
1SEC : Define time of output by second in the in/out define.
0.1SEC : Define time of output by 0.1 second (100ms) in the in/out define.

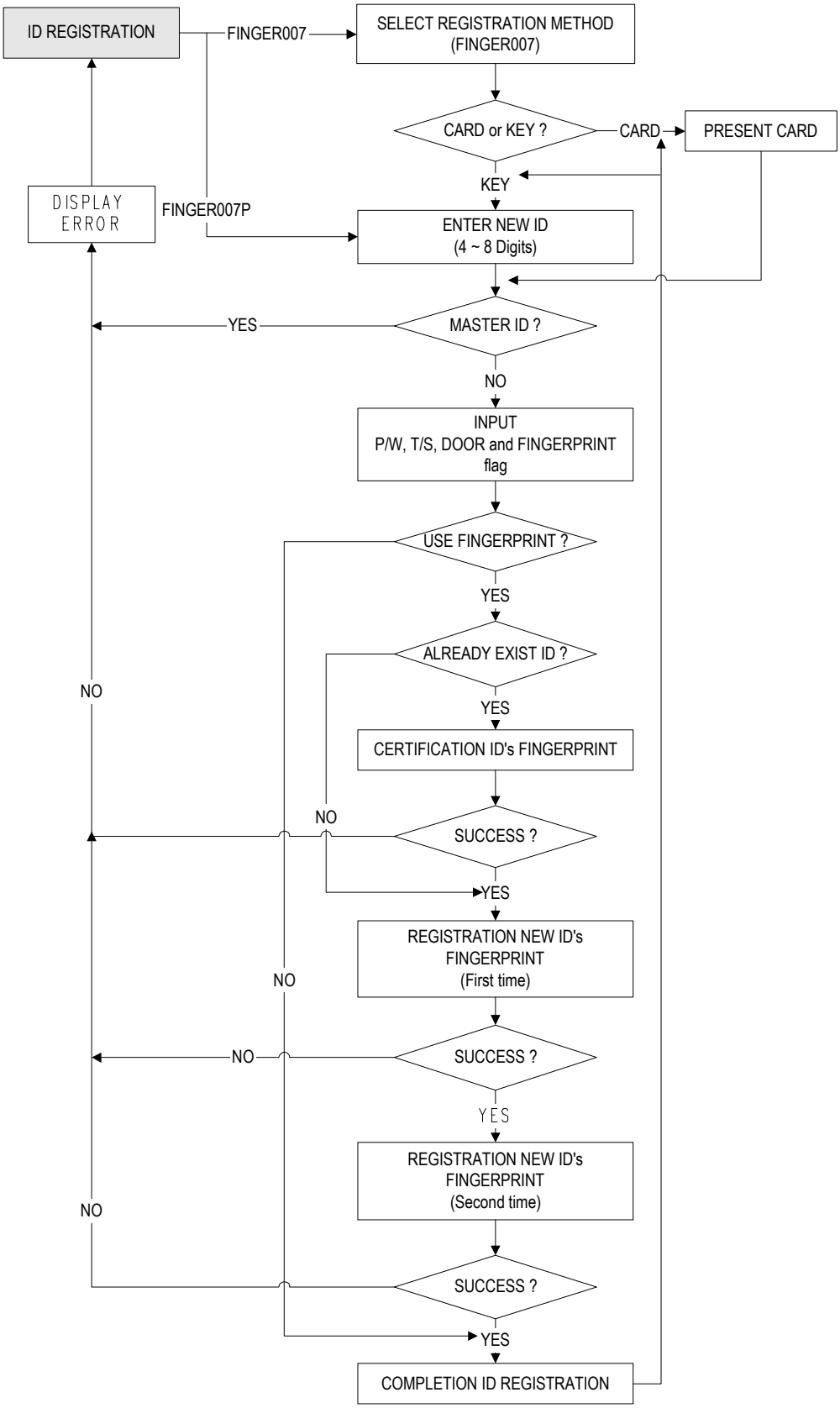
Ex) In order to have the relay 1 operate for 3 second, responding to the exit button input, set as follow.
- Define 1 Exit & Relay as "03" in IN/OUT define
- Define the OUTPUT TIME SET as 1 SEC.

Ex) In order to have the relay 1 operate for 0.3 second, responding to the exit button input, set as follow.
- Define 1 Exit & Relay as "03" in IN/OUT define
- Define the OUTPUT TIME SET as 0.1 SEC.

9.3 SETUP MENU F3



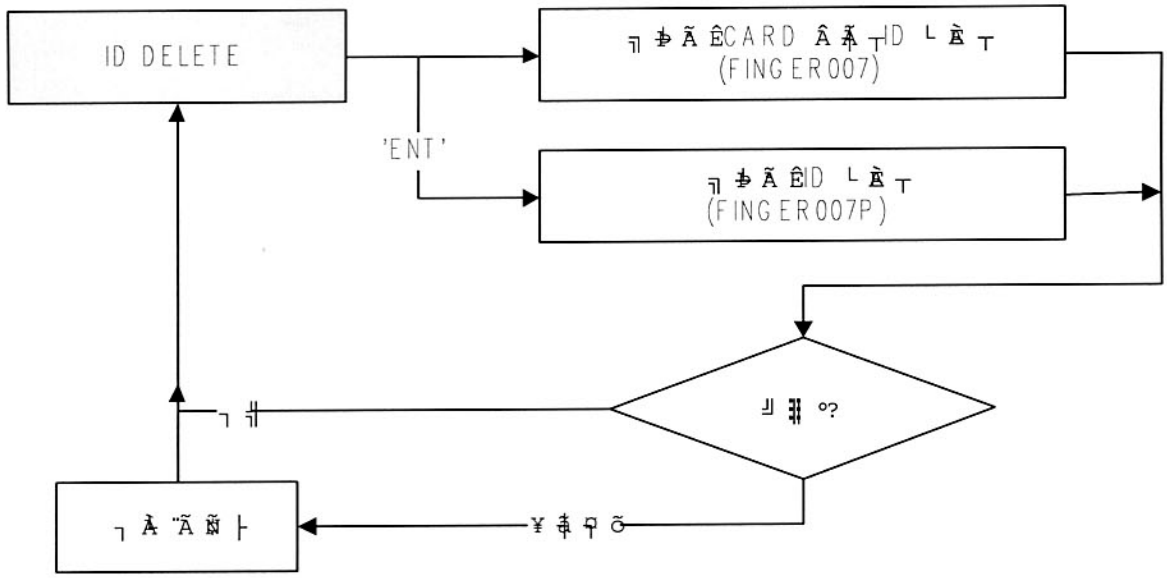
9.3.1 CARD REGISTRATION



ID REGISTRATION **CARD & Key Use** **1 – CARD, 2 - Key**	? . ID number is registered in the **FINGER007** by RF cards or through the keypad. For RF cars, Press **<1>** key, the keypad, **<2>** key, or you can quit the registration by pressing **<ESC>** key. **FINGER007 -** Over V4.70 : 4 ~ 8 Digits. Under V4.70 : 4 Digits. **FINGER007SR -** 4 ~ 8 Digits.
Put ID CARD **Scanning …** Key Input ID → : ¦ _____	.. In case register by RF card, **FINGER007** is waiting for an RF card which is to be registered. And In case register by keypad, you can register 4 ~ 8 digits ID. * **CAUTION** : **Under V4.70 : In case register by keypad, you have to enter only 4digits ID.**
XXXXXXXX PW____TS__RD_FP_ **XXXXXXXX** **ID Registered**	This figure appears, indicating the ID number you just entered on the upper line, and you are to enter the following information for the ID number : Four-digit password, two-digit Time Schedule number, Reader number(see the NOTE below) and FP flag(enter **<1>** to register a fingerprint, **<0>**, not to.). If you enter **<0>** for the FP flag, the message 'ID Registered' will be shown for a moment and the controller waits for another PIN number to be input. You can register other PINs in the same way. Press **<ESC>** key to quit the registration. (You can change the TS, the RD and the FP flag in the same way as the new registration)
To Register FP **Put Your FP On ..** **Lift and Put FP** **Waiting ...**	..If you enter **<1>** for the FP flag to register a fingerprint for the ID number, you will see this figure showing and the red light fleshing in the fingerprint input window. As the fingerprint should be scanned twice, Put a finger to the window, according to the message displayed, lift the finger off briefly and put it again. **NOTE** : 1. The fingerprint registration needs two a little different images of a fingerprint. For that reason, after the first scan, the finger must be lifted off briefly. 2. When a ID number using fingerprint is re-registered for changing options, the current fingerprint is needed to be scanned.

1) **PW**(password) : The password used in RF + fingerprint(password) and RF + password + fingerprint mode.
2) **TS**(Time schedule)
   00 : Anytime accessible 01 ~ 10 : Accessible according to each T/S index
3) **RD**(Reader code)
   1 : for using reader 1 alone
   2 : for using reader 2 alone,
   3 : for using both reader 1 and 2.
4) **FP**(Fingerprint flag)
   1 : To register a fingerprint for the ID number being registered.(If the ID number has a fingerprint already, in case of re-registration, the current fingerprint should be scanned first.)
   0 : When the ID don't need a fingerprint registered. If the controller is set to operate in RF+FINGER(P/W) or RF+P/W+FINGER mode, it will operate in RF+P/W(Password)mode.

9.3.2 ID DELETE



ID DELETE	.. This is registered ID Deletion menu. To delete some registered IDs, press **<ENT>** key. Enter the ID number or approach card that you want to delete.
Enter Card No. ->	
ID Deleted	

9.3.3 ID LIST

.. If you want to see the list of registered user ID, press the **<ENT>** key in this menu.

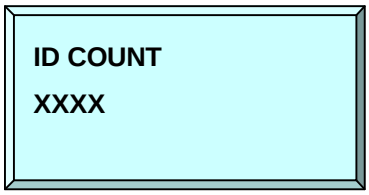
"MEMORY EMPTY" message will be displayed when there is no registered user ID.

From four to eight digit user ID, 4 digit password, the applied T/S, reader code and fingerprint flag are displayed on the LCD, and you can scroll up and down the list by pressing **<4>** and **<6>** keys. Press **<ESC>** key to return to the setup menu.

"ID LIST TOP" message will be displayed first when the first registered user ID is displayed on the LCD.

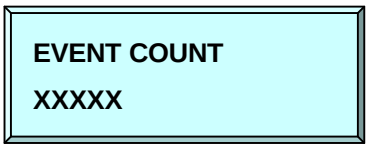
"ID LIST BOTTOM" message will be displayed first when the last registered user ID is displayed on the LCD.

9.3.4 REGISTERED ID COUNT



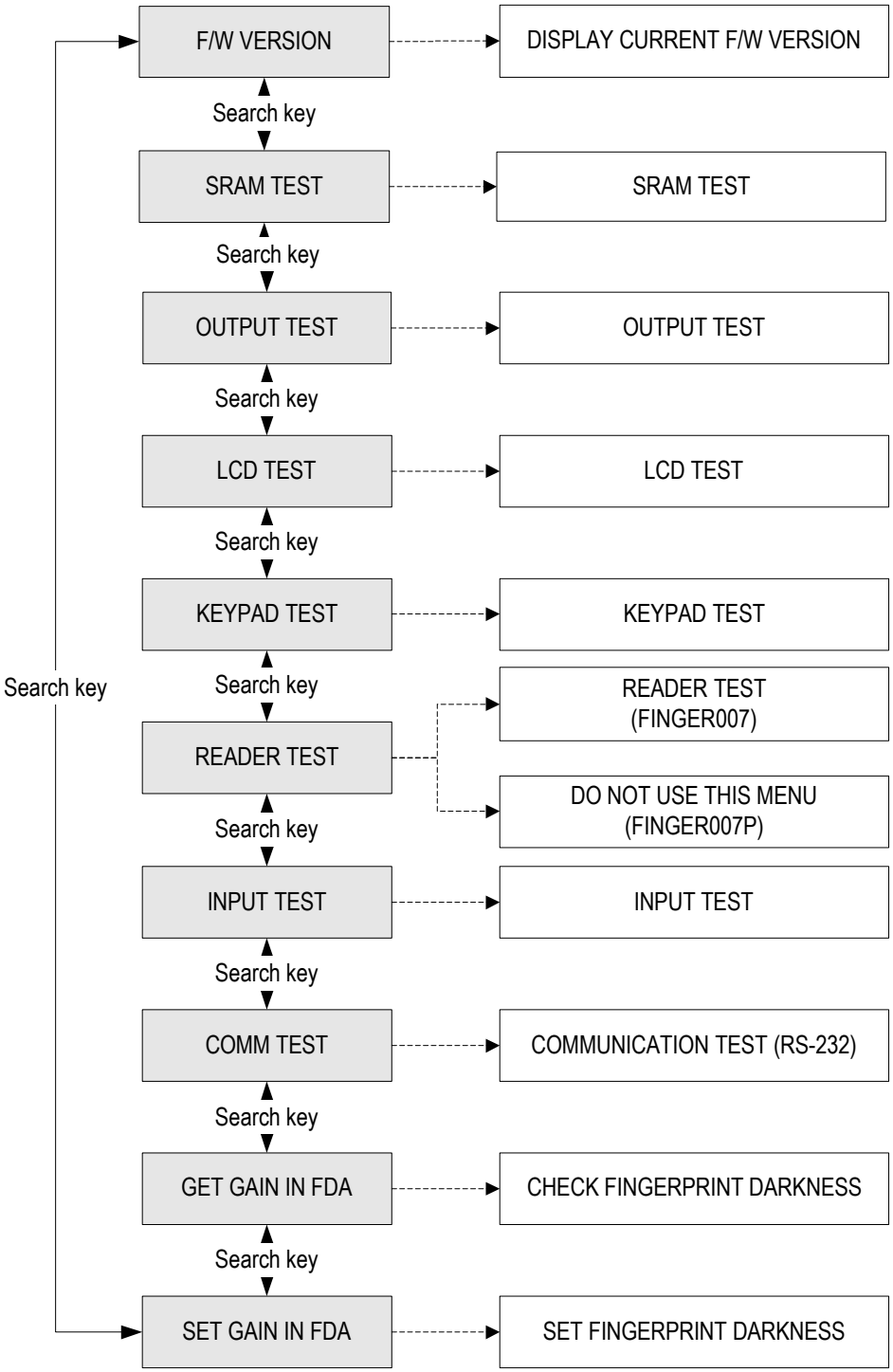
.. This menu displays the total number of registered user ID count. It automatically counts when you register or delete user ID.

9.3.5 STORED EVENT COUNT



.. This menu displays the total number of stored event count.

9.4 SETUP MENU F4



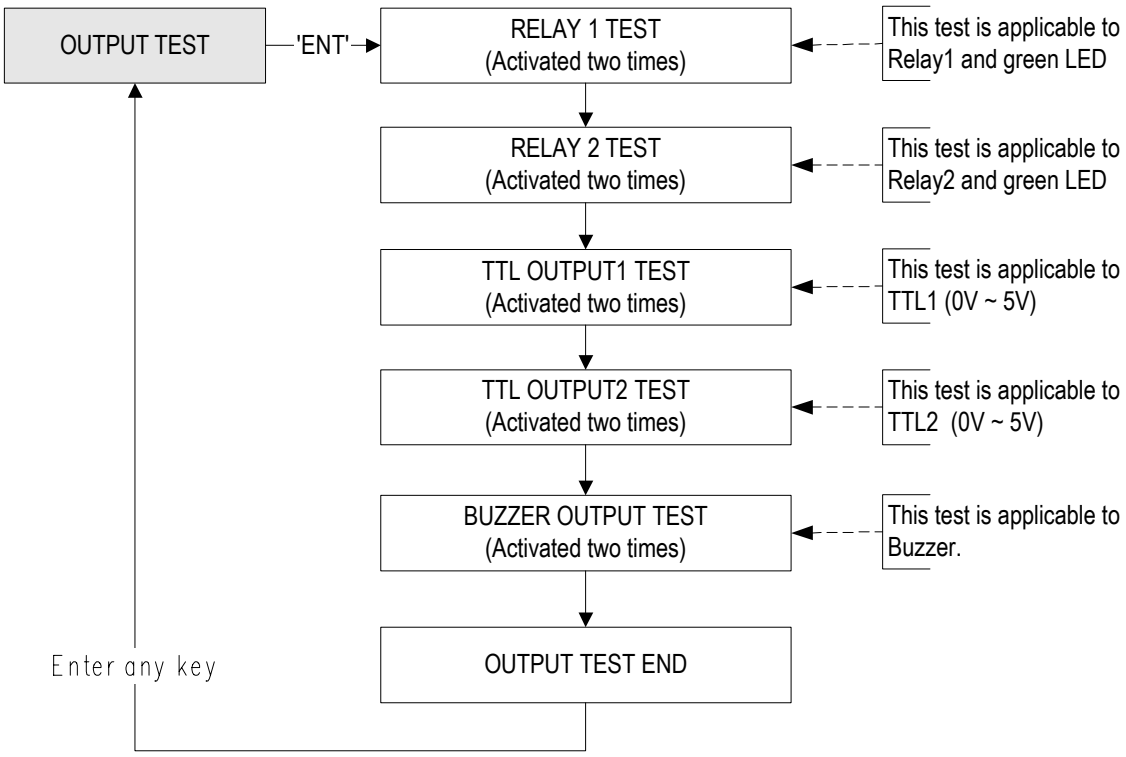
9.4.1 VERSION CHECK

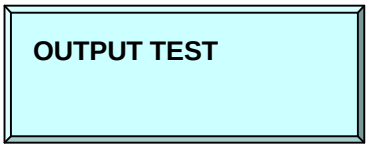
F/W Version X.XX	.. The version of the controller's firmware is displayed on the LCD. Press **<4>** or **<6>** key to look for other menus of setup menu F4.

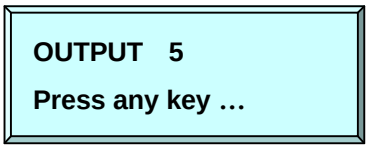
9.4.2 SRAM TEST

SRAM TEST Memory fail !!! RAM testing … RAM test pass !!! Press any key …	.. To test the SRAM memory, press **<ENT>** key. If the SRAM has problems, LCD will show the memory block number with "Memory fail!!!" message. In this case, you have to contact technical support. If the SRAM is working properly then LCD will show "RAM test pass!!!" message.

9.4.3 OUTPUTS TEST







? . To test the output performances, press **<ENT>** key. If the output performance has no problems, the test will proceeds as follows :

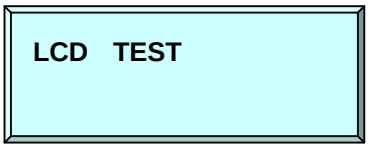
First, the green LED blinks twice as the relay is being shorted and opened twice. The relay ticktack as it works, you can hear the sound.

Second, the yellow LED blinks twice as the relay is being shorted and opened twice. The relay ticktack as it works, you can hear the sound.

Third, the LCD changes its figure, **<ON, OFF, ON, OFF>**. There's no other presentation you can see.

Fourth, the buzzer beeps twice.

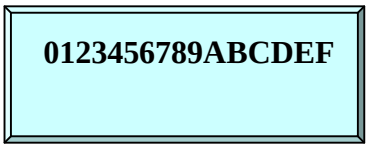
9.4.4 LCD TEST



.. To test the performance of LCD, press **<ENT>** key.

As the test proceeds several characters will move quickly from right to left.

9.4.5 KEYPAD TEST

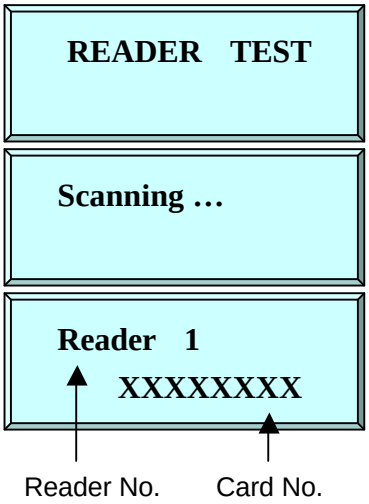


.. Press **<ENT>** key to start the keypad test.

When operating normally, pressing the keys on the keypad will display the corresponding letter on the LCD.

Note : The letters on the LCD, A, B, C, D, E and F are referred to **<F1>**, **<F2>**, **<F3>**, **<F4>**, **<ESC>** and **<ENT>**key, respectively.

9.4.6 READER TEST

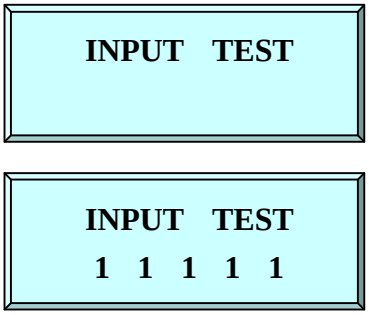


.. To test the performance of the reader, press **<ENT>** key.

NOTE : In case **FINGER007P**, you don't using this menu.

The reader is waiting for an RF card to read. Present an RF card to the reader. The test has completed successfully if the LCD displays the ID card number(example shown to left)

9.4.7 INPUT TEST



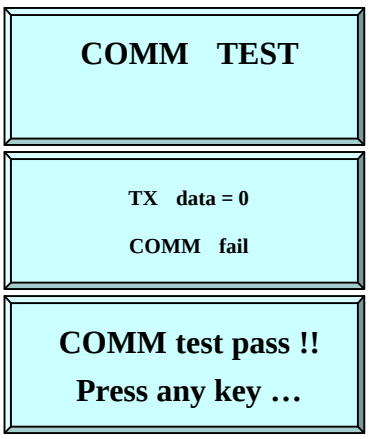
.. To test performance of input ports, press <ENT> key.

The lower line on the LCD indicates the status of the five input signals.

Note:

1. Input 1~4 – **<1>** : No input signal, **<0>** : Exist input signal
2. Input 5 – **<0>** : No input signal, **<1>** : Exist input signal

9.4.8 COMMUNICATION TEST



.. To test performance of input ports, press **<ENT>** key.
(**Before this communication test, connect the RS-232 RX, TX wires to each other.**)

If there is a problem with the communication performance, check connections and try again.

As the test proceeds, you can see the characters being transmitted and received. Finally LCD display communication test pass message.

9.4.9 CHECK FINGERPRINT DARKNESS

GET GAIN in FDA	.. You can see the current fingerprint darkness for scan. The gain is the higher, scan fingerprint is the dark. **CAUTION** : Fingerprint darkness gain and fingerprint certification ration is not always direct proportion.

9.4.10 SET FINGERPRINT DARKNESS

SET GAIN in FDA	.. You can adjust the fingerprint darkness at this menu. Press <ENT> key to adjust the fingerprint darkness. You can 1,2,4(default) or 8 as the value.

APPENDIX

A. THE RELATION BETWEEN INPUT AND OUTPUT(DEFAULT)

1. The relation between input and output

Index No	Relay#1	Relay#2	TTL1	TTL2	BUZZER
[1] Exit Button	**03**	00	00	00	00
[2] Door Contact	00	**03**	**03**	**03**	**03**
[3] AUX 1	00	**03**	**03**	**03**	**03**
[4] AUX 2	**03**	00	**03**	**03**	**03**
[5] Tamper S/W	00	**99**	**99**	**99**	**99**
[6] Reader1 ID OK	**03**	00	00	00	00
[7] Reader1 ID Error	00	**03**	00	00	00
[8] Reader1 ID T/S Error	00	**03**	00	00	00
[9] Reader1 APB Error	00	**03**	00	00	00
[10] Reader2 ID OK	**03**	00	00	00	00
[11] Reader2 ID Error	00	**03**	00	00	00
[12] Reader2 ID T/S Error	00	**03**	00	00	00
[13] Reader2 APB Error	00	**03**	00	00	00
[14] DURESS MODE	**03**	00	**03**	**03**	00
[15] OUTPUT TIME SCHEDULE	00	00	00	00	00
[16] INPUT TIME SCHEDULE	Exit	Contact	AUX 1	AUX 2	Tamper
	00	00	00	00	00

* Index No. [1] ~[14] : The value indicates operation time (second) of each output for the input signal.
* Index No. [15] : The value indicates time schedule code (index) that each output operation is to be applied.
* Index No. [16] : The value indicates the time schedule code (index) that each input:1 (Exit button) ~ 5(Tamper S/W) operation is to be applied.

B. TROUBLE SHOOTING

?Broken or abnormal letters show on the LCD, when powered on.	
Cause	Of troubles of its battery in charge of the internal back-up or of circuits near around
Solution	1. Initialize the controller referring “hardware initialization of the manual” 2. Set the current time in Set-Up menu of F1 and turn its power off and on again. 3. If the problem remains after performing 1, 2 of the above, please contact designated service center.

?Unable to enter set-up mode with MASTER ID (default value:‘00000000’) and P/W(default value: ’3141’) (cf. In case FINGER007SR, master ID consists 10digits character. Default ID “0000000000”)	
Cause	Of internal element error, of unconsciously changed Master ID or of Set-up error
Solution	1. Check Master ID and Master P/W. Try changing the RF_PIN_ENABLE setting to “ENABLE” through the application S/W. Try changing the Master ID and P/W through the application S/W. 2. When it is not feasible, initialize the unit in the light of the manual. Check Backup BAT S/W **(Mount hole in the reverse side. Of V4.70 or higher)** - It must be placed **“ON”**. ***** Note that all the value will be set to default, including the IDs after initializing. 3. If the trouble remains after the procedure above, contact a designated service center.

?Randomly changed value of in/out define from previously setting value after power reset.	
Cause	Discharge of RAM Back-Up battery problem during the main power off.
Solution	1. Check Backup Battery S/W : It must be placed ON. (Of V4.70 or higher) 2. Check if the voltage of Back-Up Battery is over 3.6V.. 3. If it is over 3.6V, make initialization process as below. - Turn off the system power and connect 3 wires (pink, cyan and black(GND)). - Turn on the system power. Then you can enter system initialization mode. Enter **<1>**key, then system is initializing. - After initializing, keep the main power on more than 5 days. *** Aware that all the setting value be back to the default value and data memory be clear.** **(ID data clear/Event data clear/ Time Schedule data clear etc.)** 4. If after all the above, the problem remains, please contact a designated service center.

?“ACCESS DOOR ERR” message shows when the RF ID card is read.	
Cause	Incorrect user setting or false of internal circuit.
Solution	1. If it is of properly operating unit before, there has been electric shock that damaged internal memory and data. Please initialize the unit as instructed in the manual. 2. Check if ID information is put incorrectly during its registration. * Register ID again checking the following points. - Since the controller has two reader ports, define “RD” – door for the user to be allowed to access. Reader1 only(Main reader) : “1”, Reader 2 only(Extra reader) : “2”, Reader 1 & 2 both: “3” - If RD is set as “1”, only when the card is read at reader 1, the door opens but not at reader2. If it is read at reader 2, “ACCESS DOOR ERROR” message shows. - If RD is set as “2”, only when the card is read at reader 2, the door opens but not at reader1. If it is read at reader 1, “ACCESS DOOR ERROR” message shows. - If RD is set as “3”, reader 1 & 2 both opens each door. 3. Use software for time schedule setting in case it is connected to PC as the software manual. 4. If the trouble remains after checking the above, contact a designated service center.

?“SCHEDULE ERROR” message shows when RFID card is read.	
Cause	Error in RFID card registration, time schedule setting or the system itself.
Solution	1. If it is of properly operating unit before, there has been electric shock that damaged internal memory and data. Please initialize the unit as instructed in the manual. 2. Check if ID information is put incorrectly during its registration. * Register ID again checking the following points. -In order to restrict access of the ID user for specific time zone as instructed in the manual, register time schedule in advance and apply the time schedule code(1~10) in the registration of the user ID. **- In order to allow the user to access at all times put “00”.** 3. Use software for time schedule setting in case it is connected to PC as the software manual. 4. If the trouble remains after checking the above, contact a designated service center.

?A valid card became unregistered after batch-downloading IDs from PC.

Cause	Wrong procedure during download, or a component defect.
Solution	1. The card ID might be registered only to the controller and not registered in PC. The process of downloading IDs, **FINGER007** first erase the ID memory of the unit, therefore if the IDs from the PC didn't contain the card ID, this can happen. 2. Check whether the card ID is registered in PC 3. If not, please register the number and try downloading again. If the trouble remains after the procedure above, contact a designated service center.

?The controller does not communicate with PC.

Cause	Defective cable is used, errors in wiring, an error in setting COMM ID of the controller, or damage on the communication port (either on PC side or on the controller side).
Solution	1. Please, check the settings of the application S/W and the controller. - Check the controller's COMM ID is listed on the application S/W. - Set the different COMM ID when two or more controllers are installed. - Check the communication speed(Default 9600bps) is the same as the setting on the S/W. - Make sure that the PC's COM port is set correctly on the S/W. - The parameters at the S/W should be set as follows. Parity bit : NONE Data bit : 8bit Stop bit : 1bit 2. Check the line connection for communication

RS232		RS422(..)		
FINGER007	PC	**FINGER007**	RS232/422 Converter	PC
RX	TX	RX(-)	TX(-)	The RS232 cable from the converter.
TX	RX	RX(+)	TX(+)	
GND	GND	TX(-)	RX(-)	
		TX(+)	RX(+)	

RS422(Multi Drop)			
FINGER007	**FINGER007**	RS232/422 Converter	PC
RX(-)	RX(-)	TX(-)	The RS232 cable from the converter
RX(+)	RX(+)	TX(+)	
TX(-)	TX(-)	RX(-)	
TX(+)	TX(+)	RX(+)	

	3. In case of setting RS422 communication, recommend to use line-end resistors of 120 Ohm between the RX(+) and RX(-) lines and between the TX(+) and TX(-) lines, and apply the same resistors to the converter RS422 lines. Consult a service center or an electric technician if you cannot be sure how to do it. 4. When a multi-drop communication doesn't work, test one-by-one communication first. 5. If the trouble remains after the procedure above, contact a designated service center.

?Keep making buzzer sound: “beep~ beep ~ beep” or “beep~~~~”.	
Cause	Error in installation, door status or internal circuits.
Solution	1. Check the door status. It occurs in case that the door is opened over 20 sec after the proper door open time. 2. Check the door contact sensor type: it should be NO type. 3. Check in **“IN/OUT DEFINE”** of F2, the fifth Time schedule code(01~10) value of 15 output T/S. If the time schedule code is set between 01-10 and if the present time is included in the schedule. If it is set to unintended value, change it to “00” (Programmable via PC software) 4. If the trouble remains after checking the above, contact a designated service center.

?The extra reader seems to read cards, but the controller does not respond or does not respond properly, such as displaying wrong card numbers in the reader test mode.	
Cause	Reader defect, wiring error between the reader and the controller, or the electric noises around.
Solution	1. Be sure that the reader reads the card ID when you present a card. 2. Be sure that the reader format is correct. 26bit Wiegand or 34bit Wiegand for **FINGER007SR**. 3. Check the wiring between the reader and **FINGER007**. - Check the wires of Wiegand data lines D0 and D1 which is connected correctly. - Connect the controller ground to the ground wire of the reader and it is recommended to connect them to an earth ground. 4. Using oscilloscope, check the shape of signals from the reader at the controller’s side. When noises are shown on the signals, it is recommended to use shielded wires and the unused wires to the common ground. You can use repeaters, also. 5. Check the maximum cable length, which may be indicated on the reader manual. 6. If the trouble remains after the procedure above, contact a designated service center.

?No problem with accessing by cards, but cannot access with the PIN input.	
Cause	An error in Setup or possible component defect.
Solution	1. Check whether a beep sound is generated when you press a key. When it is, the problem may be an error in setup. Proceed followings. - Enter the **Master ID**(“00000000” default), **P/W**(“3141” default) and **Fingerprint** to enter the Setup mode. (Note that the default Master ID for **FINGER007SR** is 10 times <0>, “0000000000”.) - Press **<F1>** key. - **‘MODE SELECTION’** will appear on the LCD, then use the key **<6>** to choose **‘RF_PIN_INPUT’** and select **‘Enable’** as wanted. 2. When there is no beep sound or already enabled Key-in functions, contact a designated service center.

?“Fingerprint error” shows in the LCD repeatedly during fingerprint registration.	
Cause	Of that fingerprint is damaged, fingerprint is extremely dried or the fingerprint module is defective of the device.
Solution	1. Of fingerprint registration, it read a fingerprint twice. If the first one and the second one are perfectly accord, its registration fails. After the first fingerprint reading, take the finger out and put again on the fingerprint reading window. 2. If the fingerprint is extremely dry or seriously damaged, it can not find its specifications. Of version 4.00 or over, get into the setting mode, F1, TYPE SLECTION and change ADAPTIVE MODE “USE” and then try again its fingerprint registration. (ADAPTIVE MODE “USE” provides more delicate reading of fingerprint but it delays a little more than normal.) 3. If the problem remains after performing 1, 2 of the above, it could be of fingerprint module defect or the device defect, please contact IDTECK service center

?“Door Closed”& CONTACT MASTER“ it shows on LCD with buzzer sounds after card reading.	
Cause	Of setting error, P/W deletion, defect of internal elements
Solution	1. Check the communication status. If the communication of the device with PC is normal and this problem occurs, check if the yellow LED is on in normal. If normally the yellow LED is ON, the door is locked by output time schedule setting. 2. If it is case of “1”check OUTPUT T/S or reinitialize the device. If the problem remains after performing it, please contact IDTECK service center. 3. If it is not the case of “1”, no communication, its yellow LED light off, it is of saved P/W deletion. Please contact IDTECK service center. 4. Of V4.5 or higher, in case of “3” it shows message “CONTACT IDTECK”WWW.IDTECK.COM with buzzer sound when the power is turn on.

WARRANTY AND SERVICE

STAR **FINGER007** warranty is 2 years from the shipping date; returns must have an RMA (Return Material Authorization) number. The customer is to provide a description of the specific problem. The customer is to include serial numbers, formats, and model numbers with the items to be returned.

Technical Support

OUTSIDE OF THE UNITED STATES

ID TECK Co., Ltd. Service Center
5F. Ace Techno Tower Bldg.,
684-1 Deungchon-dong, Gangsuh-gu,
SEOUL 157-030, KOREA
Tel.: +82 (2) 2659-0055
Fax.: +82 (2) 2659-0086
E-mail: webmaster@idteck.com
Web-site: www.idteck.com

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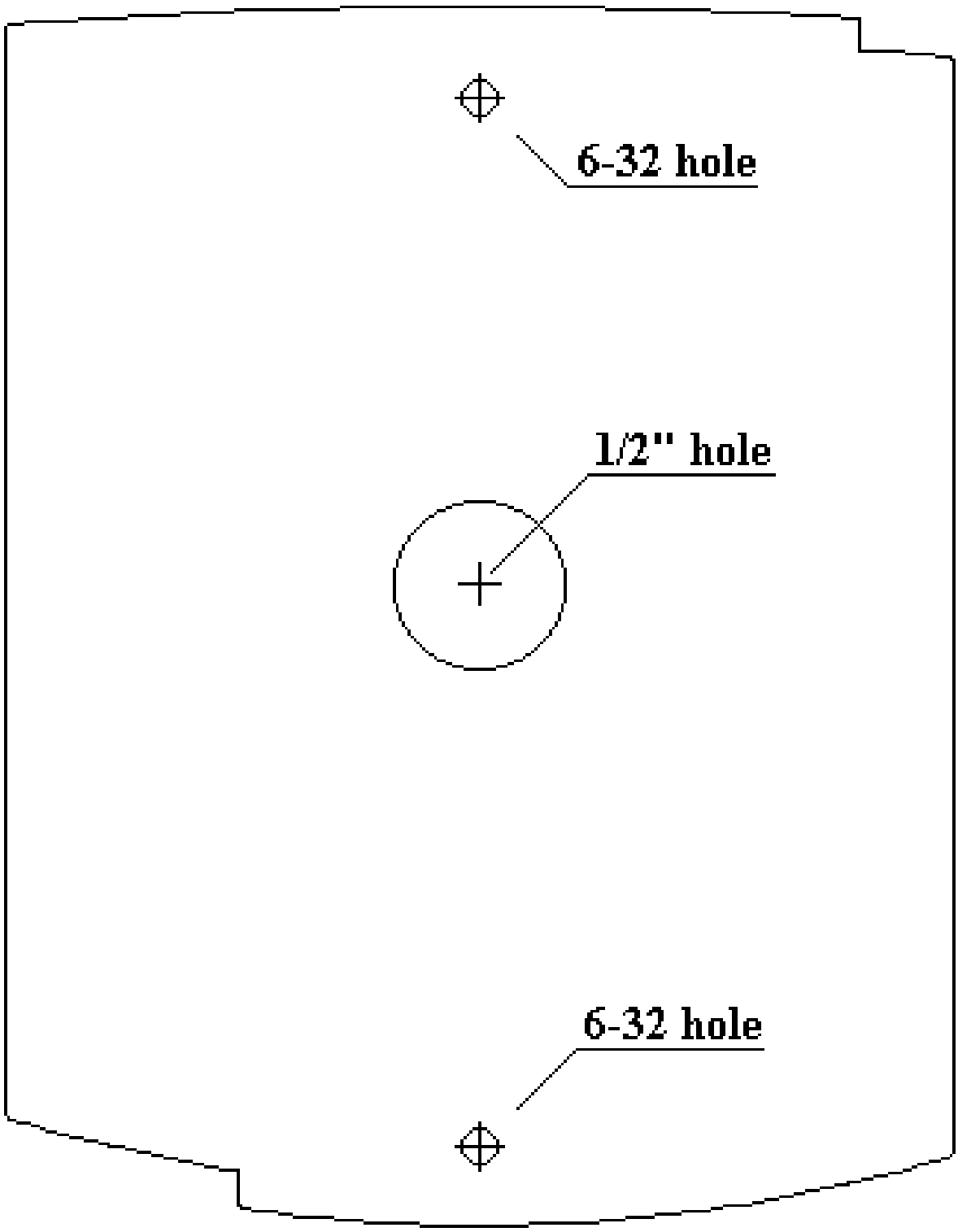
RF Logics Inc. Service Center
3026 Scott Blvd.,
SANTA CLARA, CA95054
Tel.: (408) 980-0001
Fax.: (408) 980-8060
E-mail: rflogics@rflogics.com
Web-site: www.rflogics.com

CAUTION: Damage occurring during shipment is deemed the responsibility of the carrier, and claims should be made directly to the carrier.

TEMPLATE



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